WEM090-0003 **USGS Hydrologic Unit:** 051202070706 Stream Name: Vernon Fork Muscatatuck River County: Jackson Description: CR 600 South Latitude: 38 47 36.72884 Longitude: -85 53 2.67155 Drainage: Site Number: 21T-001 SiteID: WEM090-0003 Sample Date: 5/12/2021 IDEM Sample #: AB47006 ☐ Algae? **Water Depth Water Flow Type** Run Water Appearance Brown ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % Sampler Comments: Lab ID #: **Reporting Limit** Result Method 82.1 % ASTM D888-09(C) % Sat ASTM D888-09(C) DO 8.38 mg/L pH (Field) 7.67 SU EPA 150.2 Specific Conductance (Field) 263 umho/cm SM2510B 14.4 °C Temperature SM2550B(2) 67.8 NTU Turbidity (Hach) EPA 180.1 3 Lookup Air Temp Observation Sky Conditions 1 Lookup Observation Wind Direction 0 Lookup Observation Wind Strength 2 Lookup Observation Lab ID #: 500-199136-22 **Reporting Limit** Result **Method** Alkalinity (as CaCO3) 90 mg/L 5 SM2320B Chloride 14 mg/L 1 EPA 300.0 Hardness (as CaCO3) 120 mg/L 0.91 SM2340B 44 mg/L SM2540D Solids, Suspended Total, (TSS) 5 Solids, Total (TS) 350 mg/L 10 SM2540B Solids, Total Dissolved (TDS) 300 mg/L 10 SM2540C Sulfate 11 mg/L 0.4 EPA 300.0 Calcium (Total) 34 mg/L 0.2 EPA 200.7 Magnesium (Total) 7.7 mg/L 0.1 EPA 200.7 COD 19 mg/L 10 SM5220C Nitrogen, Ammonia 0.21 mg/L 0.2 SM4500NH3-G Nitrogen, Nitrate+Nitrite 1.2 mg/L 0.1 SM4500NO3-F 0.05 SM4500P-E Phosphorus, Total 0.34 mg/L 1 mg/L SM4500N(Org)-D TKN 0.4 TOC 7.2 mg/L 1 SM5310C Lab ID #: AB47006 Result **Reporting Limit Method** 

Friday, October 08, 2021 Page 1 of 115

> 2419.6 MPN/100mL

410.6 MPN/100mL

2419.6

1

SM9223B

SM9223B

Coliforms (Total)

E. coli

<b>SiteID:</b> WEM090-0003	<b>Sample Date:</b> 6/9/2021	IDEM Samp	le#: AB47567	
Water Flow Type Run	Water Appearance	Brown	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments: water up	)			
Lab ID #:		Result	Reporting Limit	Method
% Sat		67.7 %		ASTM D888-09(C)
DO		5.88 mg/L		ASTM D888-09(C)
pH (Field)		7.28 SU		EPA 150.2
Specific Conductance (Field)		239 umho/cm		SM2510B
Temperature		22.3 °C		SM2550B(2)
Turbidity (Hach)		153 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		5 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-200713-22		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		75 mg/L	5	SM2320B
Chloride		10 mg/L	1	EPA 300.0
Hardness (as CaCO3)		110 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		140 mg/L	23	SM2540D
Solids, Total (TS)		320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		180 mg/L	10	SM2540C
Sulfate		9.5 mg/L	1	EPA 300.0
Calcium (Total)		32 mg/L	0.2	EPA 200.7
Magnesium (Total)		7.6 mg/L	0.1	EPA 200.7
COD		24 mg/L	10	SM5220C
Nitrogen, Ammonia		0.38 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		3.1 mg/L	1	SM4500NO3-F
Phosphorus, Total		0.37 mg/L	0.05	SM4500P-E
TKN		1.5 mg/L	0.4	SM4500N(Org)-D
TOC		7 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47567		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	. 2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	. 2419.6	SM9223B

Friday, October 08, 2021 Page 2 of 115

SiteID: WEM090-0003	<b>Sample Date:</b> 7/7/2021	IDEM Sample	<b>e #</b> : AB47715	
Water Flow Type Glide	Water Appearance	Brown	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		67.8 %		ASTM D888-09(C)
DO		5.47 mg/L		ASTM D888-09(C)
pH (Field)		7.66 SU		EPA 150.2
Specific Conductance (Field)		366 umho/cm		SM2510B
Temperature		26.3 °C		SM2550B(2)
Turbidity (Hach)		25.2 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #:</b> 500-202110-22		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		150 mg/L	5	SM2320B
Chloride		15 mg/L	1	EPA 300.0
Hardness (as CaCO3)		170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		33 mg/L	5	SM2540D
Solids, Total (TS)		300 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		240 mg/L	10	SM2540C
Sulfate		14 mg/L	0.4	EPA 300.0
Calcium (Total)		51 mg/L	0.2	EPA 200.7
Magnesium (Total)		11 mg/L	0.1	EPA 200.7
COD		17 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.76 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.12 mg/L	0.05	SM4500P-E
TKN		0.52 mg/L	0.2	EPA 351.2
TOC		4 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47715		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		48.8 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 3 of 115

SiteID: WEM090-0003	Sample Date: 7	7/14/2021		IDEM Sample	e #: AB47	974	
Vater Flow Type Run	Water Ap	pearance l	Brown		Water Dept	h	☐ Algae?
Vater Flow (cf/sec):	☐ Flow E	stimated?	☐ Aq	uatic Life?	Canop	y Closed %	0-20%
Sampler Comments:							
Lab ID #:		<u>R</u>	<u>Result</u>		Report	ing Limit	<u>Method</u>
% Sat			69.3	%			ASTM D888-09(C)
DO			5.85	mg/L			ASTM D888-09(C)
pH (Field)			7.41	SU			EPA 150.2
Specific Conductance (Field)			252	umho/cm			SM2510B
Temperature			24	°C			SM2550B(2)
Turbidity (Hach)			44	NTU			EPA 180.1
Air Temp			5	Lookup			Observation
Sky Conditions			3	Lookup			Observation
Wind Direction				Lookup			Observation
Wind Strength			0	Lookup			Observation
<b>Lab ID #</b> : AB47974		<u>R</u>	<u>Result</u>		Report	ing Limit	Method
Coliforms (Total)			24196	MPN/100mL	2	419.6	SM9223B
Collionnis (Total)					_		
E. coli  SitelD: WEM090-0003	Sample Date: 7	7/21/2021	410.6	MPN/100mL		1	SM9223B
E. coli  SiteID: WEM090-0003	•	7/21/2021	410.6	IDEM Sample		999	SM9223B
E. coli  SiteID: WEM090-0003  Vater Flow Type Run	Water Ap	7/21/2021	410.6 Brown	IDEM Sample	e #: AB47 Water Dept	999	☐ Algae?
E. coli  SiteID: WEM090-0003  Nater Flow Type Run  Nater Flow (cf/sec):	Water Ap	7/21/2021 ppearance [	410.6 Brown	IDEM Sampl	e #: AB47 Water Dept	999 <b>h</b>	☐ Algae?
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water Ap	7/21/2021 pearance Estimated?	410.6 Brown	IDEM Sampl	e #: AB47 Water Dept Canop	999 <b>h</b>	☐ Algae?
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Ap	7/21/2021 pearance Estimated?	Brown Aqu Result 59.7	IDEM Sample uatic Life?	e #: AB47 Water Dept Canop	1 999 h y Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water Ap	7/21/2021 pearance Estimated?	410.6  Brown  Aqu	IDEM Sample uatic Life?	e #: AB47 Water Dept Canop	1 999 h y Closed %	☐ Algae? 0-20% Method
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Ap	7/21/2021 pearance Estimated?	410.6  Brown  Aqu  8esult  59.7 4.96 7.24	IDEM Sample uatic Life?  % mg/L SU	e #: AB47 Water Dept Canop	1 999 h y Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Ap	7/21/2021 pearance Estimated?	410.6  Brown  Aqu  8esult  59.7 4.96 7.24	IDEM Sample uatic Life?  % mg/L	e #: AB47 Water Dept Canop	1 999 h y Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  campler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Ap	7/21/2021 pearance Estimated?	410.6  Brown  Aqu  8esult  59.7 4.96 7.24	IDEM Sample uatic Life?  % mg/L SU umho/cm	e #: AB47 Water Dept Canop	1 999 h y Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat	Water Ap	7/21/2021 pearance Estimated?	410.6  Brown  Aqu  8esult  59.7 4.96 7.24 230	IDEM Sample uatic Life?  % mg/L SU umho/cm °C	e #: AB47 Water Dept Canop	1 999 h y Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec): sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Ap	7/21/2021 pearance Estimated?	410.6  Brown  Aqu  59.7 4.96 7.24 230 24.7 21.9	IDEM Sample uatic Life?  % mg/L SU umho/cm °C	e #: AB47 Water Dept Canop	1 999 h y Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Ap	7/21/2021 pearance Estimated?	410.6  Brown  Aqu  59.7 4.96 7.24 230 24.7 21.9 5	IDEM Sample uatic Life?  % mg/L SU umho/cm °C NTU	e #: AB47 Water Dept Canop	1 999 h y Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Bat DO PH (Field)  Specific Conductance (Field)  Temperature Turbidity (Hach)  Air Temp	Water Ap	7/21/2021 pearance Estimated?	410.6  Brown  Aqu  8esult  59.7 4.96 7.24 230 24.7 21.9 5 1	IDEM Sample uatic Life?  % mg/L SU umho/cm °C NTU Lookup	e #: AB47 Water Dept Canop	1 999 h y Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Cathering**  **Sathering**  **DO pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions	Water Ap	7/21/2021 pearance [	410.6  Brown  Aqu  59.7 4.96 7.24 230 24.7 21.9 5 1 18	"C" NTU Lookup Lookup	e #: AB47 Water Dept Canop	1 999 h y Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation
E. coli  SitelD: WEM090-0003  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water Ap	r/21/2021 ppearance fistimated?	410.6  Brown  Aqu  59.7 4.96 7.24 230 24.7 21.9 5 1 18	"C" NTU Lookup Lookup Lookup	e #: AB47 Water Dept Canopy	1 999 h y Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation
SiteID: WEM090-0003  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Ap	r/21/2021 ppearance fistimated? R	410.6  Brown  Aqu  59.7 4.96 7.24 230 24.7 21.9 5 1 18 0	"C" NTU Lookup Lookup Lookup	e #: AB47 Water Dept Canopy Report	999 h y Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 4 of 115

SiteID: WEM090-0003 Sample Date: 7/28/2021 IDEM Sample #: AB48024 ☐ Algae? **Water Appearance** Murky **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 60 % ASTM D888-09(C) DO 4.89 mg/L ASTM D888-09(C) pH (Field) 7.46 SU EPA 150.2 378 umho/cm Specific Conductance (Field) SM2510B 25.9 °C Temperature SM2550B(2) Turbidity (Hach) 31.6 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48024 Result **Method** 

> 2419.6 MPN/100mL

67 MPN/100mL

SM9223B

SM9223B

2419.6

1

	Weather Code Definitions						
S	C		WD	WS	AT		
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

Coliforms (Total)

E. coli

Friday, October 08, 2021 Page 5 of 115

SiteID: WEM-07-0010 **USGS Hydrologic Unit:** 051202070706 Stream Name: Grassy Creek County: Jackson Description: **CR 600** Latitude: 38 47 38.57330 Longitude: -85 52 9.53353 Drainage: Site Number: 21T-002 SiteID: WEM-07-0010 Sample Date: 5/12/2021 IDEM Sample #: AB47007 ☐ Algae? **Water Depth Water Flow Type** Glide Water Appearance Brown ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % Sampler Comments: **Reporting Limit** Lab ID #: Result Method 44.1 % ASTM D888-09(C) % Sat ASTM D888-09(C) DO 4.6 mg/L pH (Field) 7.39 SU EPA 150.2 Specific Conductance (Field) 530 umho/cm SM2510B 13.2 °C Temperature SM2550B(2) 23.5 NTU Turbidity (Hach) EPA 180.1 Air Temp 3 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 0 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: 500-199136-23 **Reporting Limit** Result **Method** Alkalinity (as CaCO3) 160 mg/L 5 SM2320B Chloride 49 mg/L 2 EPA 300.0 Hardness (as CaCO3) 180 mg/L 0.91 SM2340B Solids, Suspended Total, (TSS) 12 mg/L SM2540D 5 Solids, Total (TS) 450 mg/L 10 SM2540B Solids, Total Dissolved (TDS) 440 mg/L 10 SM2540C Sulfate 19 mg/L 2 EPA 300.0 Calcium (Total) 52 mg/L 0.2 EPA 200.7 Magnesium (Total) 13 mg/L 0.1 EPA 200.7 COD 23 mg/L 10 SM5220C Nitrogen, Ammonia 0.29 mg/L 0.2 SM4500NH3-G SM4500NO3-F Nitrogen, Nitrate+Nitrite 0.92 mg/L 0.1 0.25 SM4500P-E Phosphorus, Total 2.7 mg/L 1.1 mg/L 0.4 SM4500N(Org)-D TKN TOC 9.3 mg/L 1 SM5310C

Friday, October 08, 2021	Page 6 of 115

Result

> 2419.6 MPN/100mL

58.1 MPN/100mL

**Reporting Limit** 

2419.6

1

**Method** 

SM9223B

SM9223B

Lab ID #: AB47007

Coliforms (Total)

E. coli

<b>SiteID:</b> WEM-07-0010	Sample Date: 6/9/2021	IDEM Samp	le #: AB47568	
Water Flow Type Run	Water Appearance	Brown	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments: water up-	recent rain			
Lab ID #:		Result	Reporting Limit	Method
% Sat		55 %		ASTM D888-09(C)
DO		4.85 mg/L		ASTM D888-09(C)
pH (Field)		7.01 SU		EPA 150.2
Specific Conductance (Field)		155 umho/cm		SM2510B
Temperature		21.6 °C		SM2550B(2)
Turbidity (Hach)		71.5 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		5 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		0 Lookup		Observation
Lab ID #: 500-200713-23		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		43 mg/L	5	SM2320B
Chloride		13 mg/L	1	EPA 300.0
Hardness (as CaCO3)		60 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		53 mg/L	13	SM2540D
Solids, Total (TS)		180 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		120 mg/L	10	SM2540C
Sulfate		5.8 mg/L	0.2	EPA 300.0
Calcium (Total)		17 mg/L	0.2	EPA 200.7
Magnesium (Total)		3.9 mg/L	0.1	EPA 200.7
COD		37 mg/L	10	SM5220C
Nitrogen, Ammonia		0.28 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.74 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.67 mg/L	0.05	SM4500P-E
TKN		1.5 mg/L	0.4	SM4500N(Org)-D
TOC		12 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47568		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)	;	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	;	> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 7 of 115

SiteID: WEM-07-0010	<b>Sample Date:</b> 7/7/2021	IDEM Sampl	l <b>e #</b> : AB47716	
Water Flow Type Stagnant	Water Appearance	Murky	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	Method
% Sat		70.2 %		ASTM D888-09(C)
DO		6.27 mg/L		ASTM D888-09(C)
pH (Field)		7.86 SU		EPA 150.2
Specific Conductance (Field)		832 umho/cm		SM2510B
Temperature		20.9 °C		SM2550B(2)
Turbidity (Hach)		6.46 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #:</b> 500-202110-23		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		300 mg/L	5	SM2320B
Chloride		54 mg/L	4	EPA 300.0
Hardness (as CaCO3)		350 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		5 mg/L	5	SM2540D
Solids, Total (TS)		710 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		590 mg/L	10	SM2540C
Sulfate		65 mg/L	4	EPA 300.0
Calcium (Total)		96 mg/L	0.2	EPA 200.7
Magnesium (Total)		26 mg/L	0.1	EPA 200.7
COD		9.1 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		1.7 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		2 mg/L	0.25	SM4500P-E
TKN		0.43 mg/L	0.2	EPA 351.2
TOC		2.6 mg/L	1	SM5310C
<b>Lab ID #:</b> AB47716		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		517.2 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 8 of 115

SiteID: WEM-07-0010	<b>Sample Date:</b> 7/14/2021		DEM Sample	e #: AB47975	
Vater Flow Type Pool	Water Appearance	Brown		Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aqu	atic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		58.2 %	%		ASTM D888-09(C)
DO		5.02 n	mg/L		ASTM D888-09(C)
pH (Field)		7.27 S	SU		EPA 150.2
Specific Conductance (Field)		289 u	ımho/cm		SM2510B
Temperature		22.7 °	C		SM2550B(2)
Turbidity (Hach)		19.8 N	NTU		EPA 180.1
Air Temp		5 L	_ookup		Observation
Sky Conditions		2 L	_ookup		Observation
Wind Direction		18 L	_ookup		Observation
Wind Strength		0 L	_ookup		Observation
<b>Lab ID #</b> : AB47975		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 N	MPN/100mL	2419.6	SM9223B
E. coli SiteID: WEM-07-0010	Sample Date: 7/21/2021		MPN/100mL  DEM Sample	1 e #: AB48000	SM9223B
E. coli SiteID: WEM-07-0010	Sample Date: 7/21/2021 Water Appearance		DEM Sampl		SM9223B
SiteID: WEM-07-0010  Water Flow Type Pool	·	II Brown	DEM Sampl	e#: AB48000	☐ Algae?
E. coli SiteID: WEM-07-0010 Water Flow Type Pool Water Flow (cf/sec):	Water Appearance	II Brown	DEM Sampl	e #: AB48000 Water Depth	☐ Algae?
E. coli SiteID: WEM-07-0010 Water Flow Type Pool Water Flow (cf/sec):	Water Appearance	II Brown	DEM Sampl	e #: AB48000 Water Depth	☐ Algae?
E. coli  SiteID: WEM-07-0010  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Brown  Aqua  Result	DEM Sample atic Life?	e #: AB48000 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM-07-0010  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Brown Aqua	DEM Sample atic Life?	e #: AB48000 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
E. coli  SiteID: WEM-07-0010  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Brown  Aqua  Result  49.4 % 4.17 n 7.16 S	DEM Sample atic Life?	e #: AB48000 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM-07-0010  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result  49.4 9 4.17 n 7.16 S 224 u	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB48000 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WEM-07-0010  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Appearance	Result  49.4 9 4.17 n 7.16 S 224 u 23.9 °	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB48000 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM-07-0010  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Result  49.4 9 4.17 n 7.16 S 224 u	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB48000 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WEM-07-0010  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:   % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Result  49.4 9 4.17 n 7.16 S 224 0 23.9 9 19.3 N	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB48000 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli  SiteID: WEM-07-0010  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Result  49.4 % 4.17 m 7.16 S 224 u 23.9 % 19.3 N 5 L	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB48000 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM-07-0010  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Result  49.4 9 4.17 n 7.16 S 224 u 23.9 ° 19.3 N 5 L 1 L	DEM Sample atic Life?  % ng/L SU umho/cm C NTU Lookup	e #: AB48000 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SitelD: WEM-07-0010  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance	Result  49.4 % 4.17 n 7.16 S 224 u 23.9 % 19.3 N 5 L 1 L 18 L	atic Life?  atic Life?  ang/L SU umho/cm C NTU Lookup Lookup	e #: AB48000 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WEM-07-0010  Nater Flow Type Pool  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result  49.4 % 4.17 n 7.16 S 224 u 23.9 % 19.3 N 5 L 1 L 18 L	atic Life?  atic Life?  atic Life?  atic Life?  Cong/L  Control  Cookup  Lookup  Lookup	e #: AB48000 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM-07-0010 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Appearance	Result  49.4 9 4.17 n 7.16 S 224 u 23.9 ° 19.3 N 5 L 1 L 18 L 0 L  Result	atic Life?  atic Life?  atic Life?  atic Life?  Cong/L  Control  Cookup  Lookup  Lookup	e #: AB48000  Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 9 of 115

SiteID: WEM-07-0010 Sample Date: 7/28/2021 IDEM Sample #: AB48025 ☐ Algae? **Water Appearance** Murky **Water Depth** Water Flow Type Stagnant ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 54.4 % ASTM D888-09(C) DO 4.81 mg/L ASTM D888-09(C) 7.59 SU pH (Field) EPA 150.2 776 umho/cm Specific Conductance (Field) SM2510B Temperature 21.3 °C SM2550B(2) Turbidity (Hach) 6.61 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup Lab ID #: AB48025 **Reporting Limit** Result **Method** SM9223B Coliforms (Total) > 2419.6 MPN/100mL 2419.6

117.8 MPN/100mL

SM9223B

1

	Weather Code Definitions						
S	C		WD	WS	AT		
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

E. coli

Friday, October 08, 2021 Page 10 of 115

SiteID:WEM090-0008USGS Hydrologic Unit:051202070706Stream Name:Vernon Fork Muscatatuck RiverCounty:Jackson

**Description:** CR 400 South **Latitude:** 38 49 19.42466 **Longitude:** -85 53 3.10163

Drainage: Site Number: 21T-003

**SiteID:** WEM090-0008 **Sample Date:** 5/12/2021 **IDEM Sample #:** AB47005

Water Flow Type Glide Water Appearance Brown Water Depth Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	48.5	%		ASTM D888-09(C)
DO	5.06	mg/L		ASTM D888-09(C)
pH (Field)	7.33			EPA 150.2
Specific Conductance (Field)	294	umho/cm		SM2510B
Temperature	13.6	°C		SM2550B(2)
Turbidity (Hach)	28.7	NTU		EPA 180.1
Air Temp	3	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	2	Lookup		Observation
<b>Lab ID #</b> : 500-199136-21	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	100	mg/L	5	SM2320B
Chloride	17	mg/L	1	EPA 300.0
Hardness (as CaCO3)	130	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9.5	mg/L	5	SM2540D
Solids, Total (TS)	300	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	290	mg/L	10	SM2540C
Sulfate	13	mg/L	0.4	EPA 300.0
Calcium (Total)	38	mg/L	0.2	EPA 200.7
Magnesium (Total)	8.7	mg/L	0.1	EPA 200.7
COD	14	mg/L	10	SM5220C
Nitrogen, Ammonia	0.3	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.2	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.22	mg/L	0.05	SM4500P-E
TKN	1	mg/L	0.4	SM4500N(Org)-D
TOC	6.5	mg/L	1	SM5310C
<b>Lab ID #:</b> AB47005	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	201.4	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 11 of 115

SiteID: WEM090-0008	<b>Sample Date:</b> 6/9/2021	IDEM Sample	<b>e</b> #: AB47566	
Vater Flow Type Run	Water Appearance	Brown	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
ampler Comments: water up	o-rain yesterday and today			
Lab ID #:		Result	Reporting Limit	Method
% Sat		52.9 %		ASTM D888-09(C)
DO		4.61 mg/L		ASTM D888-09(C)
pH (Field)		6.86 SU		EPA 150.2
Specific Conductance (Field)		198 umho/cm		SM2510B
Temperature		22 °C		SM2550B(2)
Turbidity (Hach)		80.8 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		5 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		1 Lookup		Observation
<b>Lab ID #:</b> 500-200713-21		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		35 mg/L	5	SM2320B
Chloride		10 mg/L	1	EPA 300.0
Hardness (as CaCO3)		60 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		42 mg/L	13	SM2540D
Solids, Total (TS)		230 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		170 mg/L	10	SM2540C
Sulfate		7.3 mg/L	0.2	EPA 300.0
Calcium (Total)		17 mg/L	0.2	EPA 200.7
Magnesium (Total)		4.3 mg/L	0.1	EPA 200.7
COD		57 mg/L	10	SM5220C
Nitrogen, Ammonia		2.6 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		7.9 mg/L	1	SM4500NO3-F
Phosphorus, Total		1.1 mg/L	0.25	SM4500P-E
TKN		6.3 mg/L	2	SM4500N(Org)-D
TOC		17 mg/L	10	SM5310C
<b>Lab ID #</b> : AB47566		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 12 of 115

SiteID: WEM090-0008	<b>Sample Date:</b> 7/7/2021	IDEM S	Sample #: AB47714	
Water Flow Type Stagnant	Water Appearance	Black	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Li	fe? Canopy Closed %	0-20%
Sampler Comments: Very sta	ngnant dark water with corn residue	and oily sheen a	ll over. Bad smell, took a pictur	e.
Lab ID #:		<u>Result</u>	Reporting Limit	Method
% Sat		4 %		ASTM D888-09(C)
DO		0.35 mg/L		ASTM D888-09(C)
pH (Field)		6.75 SU		EPA 150.2
Specific Conductance (Field)		430 umho/c	m	SM2510B
Temperature		23.7 °C		SM2550B(2)
Turbidity (Hach)		17.4 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-21		<u>Result</u>	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		160 mg/L	5	SM2320B
Chloride		28 mg/L	1	EPA 300.0
Hardness (as CaCO3)		160 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		10 mg/L	5	SM2540D
Solids, Total (TS)		360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		270 mg/L	10	SM2540C
Sulfate		6.3 mg/L	0.2	EPA 300.0
Calcium (Total)		44 mg/L	0.2	EPA 200.7
Magnesium (Total)		12 mg/L	0.1	EPA 200.7
COD		73 mg/L	10	SM5220C
Nitrogen, Ammonia		1.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.71 mg/L	0.05	SM4500P-E
TKN		2.3 mg/L	0.2	EPA 351.2
TOC		23 mg/L	4	SM5310C
<b>Lab ID #</b> : AB47714		<u>Result</u>	Reporting Limit	<u>Method</u>
Coliforms (Total)	;	> 2419.6 MPN/1	00mL 2419.6	SM9223B
E. coli		387.3 MPN/1	00mL 1	SM9223B

Friday, October 08, 2021 Page 13 of 115

SiteID: WEM090-0008	Sample Date:	7/14/2021		IDEM Sample	<b>e #</b> : AB47973	
Nater Flow Type Pool	Water	Appearance	Brown		Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow	v Estimated?	☐ Aq	uatic Life?	Canopy Closed	<b>1%</b> 0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limi	<u>t</u> <u>Method</u>
% Sat			57.8	%		ASTM D888-09(C)
DO			4.9	mg/L		ASTM D888-09(C)
pH (Field)			7.29	SU		EPA 150.2
Specific Conductance (Field)			244	umho/cm		SM2510B
Temperature			23.6	°C		SM2550B(2)
Turbidity (Hach)			21.4	NTU		EPA 180.1
Air Temp			5	Lookup		Observation
Sky Conditions			3	Lookup		Observation
Wind Direction			18	Lookup		Observation
Wind Strength			1	Lookup		Observation
<b>Lab ID #:</b> AB47973			Result		Reporting Limi	t <u>Method</u>
California (Total)			> 2419 6	MPN/100mL	2419.6	SM9223B
Coliforms (Total)			110.0			
E. coli	Sample Date:	7/21/2021		MPN/100mL	1	SM9223B
E. coli  SiteID: WEM090-0008	Sample Date:	7/21/2021 <b>Appearance</b>		MPN/100mL	1	SM9223B  ☐ Algae?
E. coli  SiteID: WEM090-0008  Vater Flow Type Pool	Water		209.8 Brown		1 e#: AB47998	☐ Algae?
E. coli  SiteID: WEM090-0008  Nater Flow Type Pool  Nater Flow (cf/sec):	Water	Appearance	209.8 Brown	IDEM Sampl	1 e #: AB47998 Water Depth	☐ Algae?
E. coli  SiteID: WEM090-0008  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	209.8 Brown	IDEM Sampl	1 e #: AB47998 Water Depth	☐ Algae?
E. coli  SiteID: WEM090-0008  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown	IDEM Sampl	e #: AB47998 Water Depth Canopy Closed	☐ Algae?
E. coli  SiteID: WEM090-0008  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	Brown Aq  Result 48.8	IDEM Sampl	e #: AB47998 Water Depth Canopy Closed	☐ Algae? I % 0-20%  t Method
E. coli  SiteID: WEM090-0008  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result  48.8 3.89	IDEM Sampl quatic Life?	e #: AB47998 Water Depth Canopy Closed	☐ Algae?  I % 0-20%  t Method  ASTM D888-09(C)
E. coli  SiteID: WEM090-0008  Water Flow Type Pool  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	Brown Aq  Result  48.8 3.89 7	IDEM Sampl quatic Life?	e #: AB47998 Water Depth Canopy Closed	Algae?  1 % 0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)
E. coli  iitelD: WEM090-0008  /ater Flow Type Pool  /ater Flow (cf/sec): ampler Comments:  _ab ID #:  % Sat	Water	Appearance	Brown Aq  Result  48.8 3.89 7	JUEM Sample Juatic Life?  % mg/L SU umho/cm	e #: AB47998 Water Depth Canopy Closed	Algae?  1 % 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  iitelD: WEM090-0008  /ater Flow Type Pool  /ater Flow (cf/sec): ampler Comments:  _ab ID #:  % Sat	Water	Appearance	Brown  Result  48.8 3.89 7 169 26.9 14.5	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB47998 Water Depth Canopy Closed	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM090-0008  Vater Flow Type Pool  Vater Flow (cf/sec):  ampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Brown  Result  48.8 3.89 7 169 26.9 14.5	JUEM Sample  Juatic Life?	e #: AB47998 Water Depth Canopy Closed	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM090-0008  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  **Lab ID #:  **Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water	Appearance	209.8  Brown  Aq  Result  48.8 3.89 7 169 26.9 14.5 5	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB47998 Water Depth Canopy Closed	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM090-0008  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  **Sat** DO** pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water	Appearance	209.8  Brown  Aq  Result  48.8 3.89 7 169 26.9 14.5 5 1	JUEM Sample  Juatic Life?  %  mg/L SU  umho/cm °C  NTU  Lookup	e #: AB47998 Water Depth Canopy Closed	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM090-0008  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  **Bate Do pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions	Water	Appearance	209.8  Brown  Aq  Result  48.8 3.89 7 169 26.9 14.5 5 1 18	"We will be something the second of the seco	e #: AB47998 Water Depth Canopy Closed	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
E. coli  SitelD: WEM090-0008  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  **Sat** DO** pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	209.8  Brown  Aq  Result  48.8 3.89 7 169 26.9 14.5 5 1 18	"Munday Cookup Lookup L	e #: AB47998 Water Depth Canopy Closed	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation
SiteID: WEM090-0008  Nater Flow Type Pool  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Brown  Result  48.8 3.89 7 169 26.9 14.5 5 1 18 0  Result	"Munday Cookup Lookup L	e #: AB47998  Water Depth Canopy Closed  Reporting Limi	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 14 of 115

SiteID: WEM090-0008 Sample Date: 7/28/2021 IDEM Sample #: AB48023

Water Flow Type Stagnant Water Appearance Black Water Depth Algae?

Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: water is black and stagnant

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	0.16	%		ASTM D888-09(C)
DO	2	mg/L		ASTM D888-09(C)
pH (Field)	6.74	SU		EPA 150.2
Specific Conductance (Field)	393	umho/cm		SM2510B
Temperature	24.5	°C		SM2550B(2)
Turbidity (Hach)	14.7	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	18	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #</b> : AB48023	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	42.4	MPN/100mL	1	SM9223B

		W	eather Code Def	initions	
S	C		WD	WS	AT
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

Friday, October 08, 2021 Page 15 of 115

WEM-07-0015 **USGS Hydrologic Unit:** 051202070706 SiteID: Stream Name: John McDonald Ditch County: Jackson Description: CR 125 South Latitude: 38 51 46.92645 Longitude: -85 50 44.12462 Drainage: Site Number: 21T-005 SiteID: WEM-07-0015 Sample Date: 5/12/2021 IDEM Sample #: AB47004 ☐ Algae? **Water Depth Water Flow Type** Water Appearance Murky Run ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % Sampler Comments: Lab ID #: Result **Reporting Limit** Method 62.7 % ASTM D888-09(C) % Sat ASTM D888-09(C) DO 6.6 mg/L 7.5 SU EPA 150.2 pH (Field) Specific Conductance (Field) 356 umho/cm SM2510B 13.1 °C Temperature SM2550B(2) 15.8 NTU Turbidity (Hach) EPA 180.1 3 Lookup Air Temp Observation Sky Conditions 1 Lookup Observation Wind Direction 0 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: 500-199136-20 **Reporting Limit** Result **Method** Alkalinity (as CaCO3) 140 mg/L 5 SM2320B Chloride 20 mg/L 1 EPA 300.0 Hardness (as CaCO3) 140 mg/L 0.91 SM2340B Solids, Suspended Total, (TSS) 5.5 mg/L SM2540D 5 Solids, Total (TS) 290 mg/L 10 SM2540B Solids, Total Dissolved (TDS) 310 mg/L 10 SM2540C Sulfate 10 mg/L 0.4 EPA 300.0 Calcium (Total) 38 mg/L 0.2 EPA 200.7 Magnesium (Total) 10 mg/L 0.1 EPA 200.7 COD 10 SM5220C 17 mg/L Nitrogen, Ammonia 0.23 mg/L 0.2 SM4500NH3-G Nitrogen, Nitrate+Nitrite 0.21 mg/L 0.1 SM4500NO3-F 0.05 SM4500P-E Phosphorus, Total 0.21 mg/L 0.92 mg/L SM4500N(Org)-D TKN 0.4 TOC 8.9 mg/L 1 SM5310C Lab ID #: AB47004 Result **Reporting Limit Method** 

Friday, October 08, 2021 Page 16 of 115

> 2419.6 MPN/100mL

172.3 MPN/100mL

2419.6

1

SM9223B

SM9223B

Coliforms (Total)

E. coli

SiteID: WEM-07-0015	<b>Sample Date:</b> 6/9/2021	IDEM Samp	le #: AB47565	
Water Flow Type Flood	Water Appearance	Brown	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments: Flooded				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		59.9 %		ASTM D888-09(C)
DO		5.36 mg/L		ASTM D888-09(C)
pH (Field)		7.03 SU		EPA 150.2
Specific Conductance (Field)		156 umho/cm		SM2510B
Temperature		20.8 °C		SM2550B(2)
Turbidity (Hach)		92.1 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-200713-20		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		39 mg/L	5	SM2320B
Chloride		14 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)		61 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		54 mg/L	13	SM2540D
Solids, Total (TS)		230 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		130 mg/L	10	SM2540C
Sulfate		7.5 mg/L	0.2	EPA 300.0
Calcium (Total)		18 mg/L	0.2	EPA 200.7
Magnesium (Total)		4.3 mg/L	0.1	EPA 200.7
COD		32 mg/L	10	SM5220C
Nitrogen, Ammonia		0.44 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		2.3 mg/L	0.5	SM4500NO3-F
Phosphorus, Total		0.25 mg/L	0.05	SM4500P-E
TKN		1.5 mg/L	0.4	SM4500N(Org)-D
TOC		11 mg/L	4	SM5310C
<b>Lab ID #</b> : AB47565		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	. 2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 17 of 115

SiteID: WEM-07-0015	<b>Sample Date:</b> 7/7/2021	IDEM :	Sample #: AB47713	
Water Flow Type Stagnant	Water Appearance	Murky	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	Aquatic L	ife? Canopy Closed %	0-20%
Sampler Comments: Wetland	d-like surroundings, low flow.			
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		31.9 %		ASTM D888-09(C)
DO		2.76 mg/L		ASTM D888-09(C)
pH (Field)		7.52 SU		EPA 150.2
Specific Conductance (Field)		454 umho/d	em	SM2510B
Temperature		23.3 °C		SM2550B(2)
Turbidity (Hach)		6.37 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup	•	Observation
<b>Lab ID #</b> : 500-202110-20		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		240 mg/L	5	SM2320B
Chloride		19 mg/L	1	EPA 300.0
Hardness (as CaCO3)		220 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		2.8 mg/L	5	SM2540D
Solids, Total (TS)		360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		270 mg/L	10	SM2540C
Sulfate		14 mg/L	0.4	EPA 300.0
Calcium (Total)		62 mg/L	0.2	EPA 200.7
Magnesium (Total)		16 mg/L	0.1	EPA 200.7
COD		18 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.45 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.16 mg/L	0.05	SM4500P-E
TKN		0.35 mg/L	0.2	EPA 351.2
TOC		5.5 mg/L	1	SM5310C
<b>Lab ID #:</b> AB47713		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/1	00mL 2419.6	SM9223B
E. coli		60.9 MPN/1	00mL 1	SM9223B

Friday, October 08, 2021 Page 18 of 115

SiteID: WEM-07-0015	Sample Date:	7/14/2021		IDEM Sample	e #: AB47972	
Water Flow Type Run	Water	Appearance	Brown		Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow	/ Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			55.4	%		ASTM D888-09(C)
DO			4.87	mg/L		ASTM D888-09(C)
pH (Field)			7.17	SU		EPA 150.2
Specific Conductance (Field)			219	umho/cm		SM2510B
Temperature			21.8	°C		SM2550B(2)
Turbidity (Hach)			24	NTU		EPA 180.1
Air Temp			5	Lookup		Observation
Sky Conditions			3	Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
<b>Lab ID #</b> : AB47972			Result		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli SiteID: WEM-07-0015	Sample Date:	7/21/2021	145.5	MPN/100mL  IDEM Sample	1 e #: AB47997	SM9223B
SiteID: WEM-07-0015	-	7/21/2021 <b>Appearance</b>	145.5 Brown			SM9223B
SiteID: WEM-07-0015 Water Flow Type Run	Water		Brown		e#: AB47997	☐ Algae?
SiteID: WEM-07-0015  Water Flow Type Run  Water Flow (cf/sec):	Water	Appearance	Brown	IDEM Sampl	e #: AB47997 Water Depth	☐ Algae?
SiteID: WEM-07-0015  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water	Appearance	Brown	IDEM Sampl	e #: AB47997 Water Depth	☐ Algae?
SiteID: WEM-07-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sample quatic Life?	e #: AB47997 Water Depth Canopy Closed %	☐ Algae? 0-20%
SiteID: WEM-07-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sampl	e #: AB47997 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WEM-07-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sample unatic Life?  % mg/L	e #: AB47997 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WEM-07-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	Brown  Aq  Result  50.8 4.46 7.1	IDEM Sample unatic Life?  % mg/L	e #: AB47997 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WEM-07-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat  DO  pH (Field)	Water	Appearance	Brown  Aq  Result  50.8 4.46 7.1	Muatic Life?  % mg/L SU umho/cm	e #: AB47997 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM-07-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Brown  Aq  Result  50.8 4.46 7.1 236	## Minute of the control of the cont	e #: AB47997 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM-07-0015  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Brown  Result  50.8 4.46 7.1 236 21.8 19.7	## Minute of the control of the cont	e #: AB47997 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WEM-07-0015  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water	Appearance	Brown  Result  50.8 4.46 7.1 236 21.8 19.7 4	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB47997 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WEM-07-0015  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water	Appearance	Brown  Result  50.8 4.46 7.1 236 21.8 19.7 4	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47997 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation
SiteID: WEM-07-0015  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Brown  Result  50.8 4.46 7.1 236 21.8 19.7 4 1	"C" NTU Lookup	e #: AB47997 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WEM-07-0015  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Brown  Result  50.8 4.46 7.1 236 21.8 19.7 4 1	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47997 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM-07-0015 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Brown  Result  50.8 4.46 7.1 236 21.8 19.7 4 1 18 0  Result	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47997  Water Depth Canopy Closed %  Reporting Limit	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 19 of 115

SiteID: WEM-07-0015 Sample Date: 7/28/2021 IDEM Sample #: AB48022

Water Flow Type Pool Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: very low flow

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	31.5	%		ASTM D888-09(C)
DO	2.71	mg/L		ASTM D888-09(C)
pH (Field)	7.33	SU		EPA 150.2
Specific Conductance (Field)	453	umho/cm		SM2510B
Temperature	22.7	°C		SM2550B(2)
Turbidity (Hach)	7.71	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	18	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #</b> : AB48022	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	261.3	MPN/100mL	1	SM9223B

		W	eather Code Def	initions	
S	C		WD	WS	AT
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

Friday, October 08, 2021 Page 20 of 115

 SiteID:
 WEM-07-0021
 USGS Hydrologic Unit:
 051202070705

 Stream Name:
 Tea Creek
 County:
 Jennings

**Description:** CR 650 South **Latitude:** 38 53 17.94956 **Longitude:** -85 4 20.64590

Drainage: Site Number: 21T-006

**SiteID:** WEM-07-0021 **Sample Date:** 5/11/2021 **IDEM Sample #**: AB46994

Water Flow Type Run Water Appearance Clear Water Depth 

Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	130.8	%		ASTM D888-09(C)
DO	13.47	mg/L		ASTM D888-09(C)
pH (Field)	8.53	SU		EPA 150.2
Specific Conductance (Field)	336	umho/cm		SM2510B
Temperature	13.9	°C		SM2550B(2)
Turbidity (Hach)	9.88	NTU		EPA 180.1
Air Temp	3	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : 500-199136-11	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	140	mg/L	5	SM2320B
Chloride	15	mg/L	1	EPA 300.0
Hardness (as CaCO3)	140	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2.5	mg/L	5	SM2540D
Solids, Total (TS)	280	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	250	mg/L	10	SM2540C
Sulfate	13	mg/L	0.4	EPA 300.0
Calcium (Total)	41	mg/L	0.2	EPA 200.7
Magnesium (Total)	10	mg/L	0.1	EPA 200.7
COD	17	mg/L	10	SM5220C
Nitrogen, Ammonia	0.17	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.33	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.094	mg/L	0.05	SM4500P-E
TKN		mg/L	0.4	SM4500N(Org)-D
TOC	5.5	mg/L	1	SM5310C
<b>Lab ID #</b> : AB46994	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	579.4	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 21 of 115

SiteID: WEM-07-0021	<b>Sample Date:</b> 6/8/2021	IDEM Sample	#: AB47555	
Water Flow Type Run	Water Appearance	Clear V	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		93.1 %		ASTM D888-09(C)
DO		8.26 mg/L		ASTM D888-09(C)
pH (Field)		7.89 SU		EPA 150.2
Specific Conductance (Field)		419 umho/cm		SM2510B
Temperature		21.1 °C		SM2550B(2)
Turbidity (Hach)		4.88 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		7 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength		1 Lookup		Observation
<b>Lab ID #</b> : 500-200713-11		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		150 mg/L	5	SM2320B
Chloride		26 mg/L	1	EPA 300.0
Hardness (as CaCO3)		200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		3 mg/L	5	SM2540D
Solids, Total (TS)		340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		220 mg/L	10	SM2540C
Sulfate		18 mg/L	1	EPA 300.0
Calcium (Total)		57 mg/L	0.2	EPA 200.7
Magnesium (Total)		13 mg/L	0.1	EPA 200.7
COD		18 mg/L	10	SM5220C
Nitrogen, Ammonia		0.18 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.088 mg/L	0.05	SM4500P-E
TKN		0.53 mg/L	0.4	SM4500N(Org)-D
TOC		5.8 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47555		<u>Result</u>	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		1046.2 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 22 of 115

<b>SiteID:</b> WEM-07-0021	<b>Sample Date:</b> 7/6/2021	IDEM Sample	<b>e #</b> : AB47703	
Water Flow Type Pool	Water Appearance	Clear	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	✓ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	Method
% Sat		120.5 %		ASTM D888-09(C)
DO		10 mg/L		ASTM D888-09(C)
pH (Field)		7.97 SU		EPA 150.2
Specific Conductance (Field)		381 umho/cm		SM2510B
Temperature		24.8 °C		SM2550B(2)
Turbidity (Hach)		3.54 NTU		EPA 180.1
Air Temp		6 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-11		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		170 mg/L	5	SM2320B
Chloride		12 mg/L	1	EPA 300.0
Hardness (as CaCO3)		190 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		2.6 mg/L	5	SM2540D
Solids, Total (TS)		250 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		230 mg/L	10	SM2540C
Sulfate		12 mg/L	1	EPA 300.0
Calcium (Total)		57 mg/L	0.2	EPA 200.7
Magnesium (Total)		12 mg/L	0.1	EPA 200.7
COD		17 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		2 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.045 mg/L	0.05	SM4500P-E
TKN		0.33 mg/L	0.2	EPA 351.2
TOC		3.5 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47703		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		1299.7 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 23 of 115

SiteID: WEM-07-0021	Sample Date: 7/14/2021		IDEM Sample	e#: AB47962	
Vater Flow Type Riffle	Water Appearance	Clear	,	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		96.9	%		ASTM D888-09(C)
DO		8.44	mg/L		ASTM D888-09(C)
pH (Field)		7.67	SU		EPA 150.2
Specific Conductance (Field)		276	umho/cm		SM2510B
Temperature		22.2	°C		SM2550B(2)
Turbidity (Hach)		11.8	NTU		EPA 180.1
Air Temp		5	Lookup		Observation
Sky Conditions			Lookup		Observation
Wind Direction			Lookup		Observation
Wind Strength			Lookup		Observation
<b>Lab ID #</b> : AB47962		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		11100	MPN/100mL	1	SM9223B
	Sample Date: 7/20/2021		IDEM Sample		CMOLLOD
SiteID: WEM-07-0021	Sample Date: 7/20/2021 Water Appearance		IDEM Sample		☐ Algae?
SiteID: WEM-07-0021 S	•	Clear	IDEM Sample	#: AB47987	☐ Algae?
SiteID: WEM-07-0021 S Nater Flow Type Riffle Nater Flow (cf/sec):	Water Appearance	Clear	IDEM Sample	#: AB47987 Water Depth	☐ Algae?
SiteID: WEM-07-0021 S Water Flow Type Riffle Water Flow (cf/sec): Sampler Comments:	Water Appearance	Clear	IDEM Sample	#: AB47987 Water Depth	☐ Algae?
SiteID: WEM-07-0021 S Water Flow Type Riffle Water Flow (cf/sec): Sampler Comments:	Water Appearance	Clear Aqı	IDEM Sample \text{\text{V}} uatic Life?	#: AB47987 Water Depth Canopy Closed %	☐ Algae? 0-20%
SiteID: WEM-07-0021 S Vater Flow Type Riffle Vater Flow (cf/sec): Sampler Comments:	Water Appearance	Clear Aqu	IDEM Sample vuatic Life?	#: AB47987 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WEM-07-0021 S  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear Aqu  Result	IDEM Sample v uatic Life?  % mg/L	#: AB47987 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WEM-07-0021 Section 1. Se	Water Appearance	Clear  Result  104.8 9.14 7.85	IDEM Sample v uatic Life?  % mg/L	#: AB47987 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WEM-07-0021  Nater Flow Type Riffle  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Appearance	Clear  Result  104.8 9.14 7.85	Unit of the state	#: AB47987 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM-07-0021  Vater Flow Type Riffle  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Clear  Result  104.8 9.14 7.85 292	We mg/L SU umho/cm °C	#: AB47987 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM-07-0021  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:   % Sat  DO  pH (Field)  Specific Conductance (Field)  Temperature	Water Appearance	Clear  Result  104.8 9.14 7.85 292 22.1 7.96	We mg/L SU umho/cm °C	#: AB47987 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WEM-07-0021  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Clear  Result  104.8 9.14 7.85 292 22.1 7.96 5	Watic Life?  % mg/L SU umho/cm °C NTU	#: AB47987 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WEM-07-0021  Nater Flow Type Riffle  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Clear  Result  104.8 9.14 7.85 292 22.1 7.96 5 2	Watic Life?  % mg/L SU umho/cm °C NTU Lookup	#: AB47987 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WEM-07-0021  Nater Flow Type Riffle  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance	Clear  Result  104.8 9.14 7.85 292 22.1 7.96 5 2 18	Watic Life?  % mg/L SU umho/cm °C NTU Lookup Lookup	#: AB47987 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WEM-07-0021  Nater Flow Type Riffle  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Clear  Result  104.8 9.14 7.85 292 22.1 7.96 5 2 18	"Watic Life?"  "Matic Life?"  "Matic Life?	#: AB47987 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM-07-0021  Water Flow Type Riffle  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Appearance	Clear  Result  104.8 9.14 7.85 292 22.1 7.96 5 2 18 1  Result	"Watic Life?"  "Matic Life?"  "Matic Life?	#: AB47987 Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 24 of 115

**SitelD:** WEM-07-0021 **Sample Date:** 7/27/2021 **IDEM Sample #:** AB48012

Water Flow Type Riffle Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ☑ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	94.1	%		ASTM D888-09(C)
DO	8.12	mg/L		ASTM D888-09(C)
pH (Field)	7.82	SU		EPA 150.2
Specific Conductance (Field)	368	umho/cm		SM2510B
Temperature	22.6	°C		SM2550B(2)
Turbidity (Hach)	2.58	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	18	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #</b> : AB48012	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	461.1	MPN/100mL	1	SM9223B

Weather Code Definitions								
_	SC WD Sky Conditions Wind Direction		=				WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

Friday, October 08, 2021 Page 25 of 115

 SiteID:
 WEM070-0029
 USGS Hydrologic Unit:
 051202070705

 Stream Name:
 Tea Creek
 County:
 Jennings

**Description:** CR 650 West **Latitude:** 38 53 9.76552 **Longitude:** -85 43 52.69889

**Drainage**: 10.6 **Site Number**: 21T-007

**SiteID:** WEM070-0029 **Sample Date:** 5/11/2021 **IDEM Sample #:** AB46993

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: Truck went by spraying chemicals

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	103.4	%		ASTM D888-09(C)
DO	10.76	mg/L		ASTM D888-09(C)
pH (Field)	7.88	SU	EPA 150.2	
Specific Conductance (Field)	379	umho/cm		SM2510B
Temperature	13.5	°C		SM2550B(2)
Turbidity (Hach)	10.1	NTU		EPA 180.1
Air Temp	3	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	2	Lookup		Observation
<b>Lab ID #</b> : 500-199136-10	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	160	mg/L	5	SM2320B
Chloride	13	mg/L	1	EPA 300.0
Hardness (as CaCO3)	170	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2	mg/L	5	SM2540D
Solids, Total (TS)	300	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280	mg/L	10	SM2540C
Sulfate	15	mg/L	1	EPA 300.0
Calcium (Total)	49	mg/L	0.2	EPA 200.7
Magnesium (Total)	11	mg/L	0.1	EPA 200.7
COD	10	mg/L	10	SM5220C
Nitrogen, Ammonia	0.12	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.49	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.078	mg/L	0.05	SM4500P-E
TKN	0.49	mg/L	0.4	SM4500N(Org)-D
TOC	4.2	mg/L	1	SM5310C
<b>Lab ID #</b> : AB46993	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	579.4	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 26 of 115

Votor Flow Type Bool	Motor Ammanas	Cloor	Water Denth	☐ Algae?
Vater Flow Type Pool	Water Appearance		Water Depth	□ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	Method
% Sat		74.7 %		ASTM D888-09(C)
DO		6.6 mg/L		ASTM D888-09(C)
pH (Field)		7.7 SU		EPA 150.2
Specific Conductance (Field)		442 umho/cm		SM2510B
Temperature		21.4 °C		SM2550B(2)
Turbidity (Hach)		7.8 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		7 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength		1 Lookup		Observation
<b>Lab ID #</b> : 500-200713-10		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		180 mg/L	5	SM2320B
Chloride		20 mg/L	1	EPA 300.0
Hardness (as CaCO3)		220 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		4.8 mg/L	10	SM2540D
Solids, Total (TS)		340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		230 mg/L	10	SM2540C
Sulfate		18 mg/L	1	EPA 300.0
Calcium (Total)		65 mg/L	0.2	EPA 200.7
Magnesium (Total)		14 mg/L	0.1	EPA 200.7
COD		14 mg/L	10	SM5220C
Nitrogen, Ammonia		0.18 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		1.5 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.087 mg/L	0.05	SM4500P-E
TKN		0.45 mg/L	0.4	SM4500N(Org)-D
TOC		4.4 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47554		<u>Result</u>	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		307.6 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 27 of 115

<b>SiteID:</b> WEM070-0029	<b>Sample Date:</b> 7/6/2021	IDEM Samp	le #: AB47702	
Water Flow Type Glide	Water Appearance	Murky	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:		·		
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		53.4 %		ASTM D888-09(C)
DO		4.48 mg/L		ASTM D888-09(C)
pH (Field)		7.63 SU		EPA 150.2
Specific Conductance (Field)		418 umho/cm		SM2510B
Temperature		24.2 °C		SM2550B(2)
Turbidity (Hach)		9.28 NTU		EPA 180.1
Air Temp		6 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-10		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		190 mg/L	5	SM2320B
Chloride		9.4 mg/L	1	EPA 300.0
Hardness (as CaCO3)		210 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		6.8 mg/L	5	SM2540D
Solids, Total (TS)		280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		280 mg/L	10	SM2540C
Sulfate		13 mg/L	1	EPA 300.0
Calcium (Total)		64 mg/L	0.2	EPA 200.7
Magnesium (Total)		13 mg/L	0.1	EPA 200.7
COD		14 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.79 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.088 mg/L	0.05	SM4500P-E
TKN		0.37 mg/L	0.2	EPA 351.2
TOC		3.5 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47702		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		613.1 MPN/100mL	. 1	SM9223B

Friday, October 08, 2021 Page 28 of 115

SiteID: WEM070-0029	<b>Sample Date:</b> 7/14/2021	IDEM Sam	iple #: AB47961	
Nater Flow Type Riffle	Water Appearance	Clear	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:		·		
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		89.1 %		ASTM D888-09(C)
DO		7.8 mg/L		ASTM D888-09(C)
pH (Field)		7.64 SU		EPA 150.2
Specific Conductance (Field)		319 umho/cm		SM2510B
Temperature		21.8 °C		SM2550B(2)
Turbidity (Hach)		14.8 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		2 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : AB47961		Result	Reporting Limit	Method
California (Tatal)		> 2419.6 MPN/100n	nL 2419.6	SM9223B
Coliforms (Total)		> 2419.0 IVIF IV/ 10011	L 2-10.0	OIVIOZZOD
E. coli  SiteID: WEM070-0029	Sample Date: 7/20/2021	920.8 MPN/100n	nL 1	SM9223B
E. coli SiteID: WEM070-0029	Sample Date: 7/20/2021 Water Appearance	920.8 MPN/100n	nL 1	
E. coli SiteID: WEM070-0029 Water Flow Type Pool	·	920.8 MPN/100n	nL 1  nple #: AB47986  Water Depth	SM9223B
E. coli SiteID: WEM070-0029	Water Appearance	920.8 MPN/100n  IDEM Sam  Murky	nple #: AB47986  Water Depth	SM9223B
E. coli  SiteID: WEM070-0029  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:	Water Appearance	920.8 MPN/100n  IDEM Sam  Murky	nple #: AB47986  Water Depth	SM9223B
E. coli  SiteID: WEM070-0029  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:	Water Appearance	920.8 MPN/100n  IDEM Sam  Murky  Aquatic Life?	nple #: AB47986  Water Depth Canopy Closed %	SM9223B  Algae? 0-20%
E. coli  SiteID: WEM070-0029  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	920.8 MPN/100n  IDEM Sam  Murky  Aquatic Life?	nple #: AB47986  Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method
E. coli  SiteID: WEM070-0029  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	920.8 MPN/100n  IDEM Sam  Murky  Aquatic Life?  Result  85.2 %  7.6 mg/L  7.66 SU	nple #: AB47986  Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM070-0029  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	920.8 MPN/100n  IDEM Sam  Murky  Aquatic Life?  Result  85.2 %  7.6 mg/L	nple #: AB47986  Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SitelD: WEM070-0029  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Appearance	920.8 MPN/100n  IDEM Sam  Murky  Aquatic Life?  Result  85.2 %  7.6 mg/L  7.66 SU	nple #: AB47986  Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM070-0029  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	920.8 MPN/100n  IDEM Sam  Murky  Aquatic Life?  Result  85.2 %  7.6 mg/L  7.66 SU  376 umho/cm	nple #: AB47986  Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WEM070-0029  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	920.8 MPN/100m  IDEM Sam  Murky  Aquatic Life?  Result  85.2 %  7.6 mg/L  7.66 SU  376 umho/cm  20.9 °C	nple #: AB47986  Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli  SiteID: WEM070-0029  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	920.8 MPN/100m  IDEM Sam  Murky  Aquatic Life?  Result  85.2 %  7.6 mg/L  7.66 SU  376 umho/cm  20.9 °C  9.84 NTU	nple #: AB47986  Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM070-0029  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:   % Sat  DO  pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp	Water Appearance	920.8 MPN/100m  IDEM Sam  Murky  Aquatic Life?  Result  85.2 %  7.6 mg/L  7.66 SU  376 umho/cm  20.9 °C  9.84 NTU  5 Lookup	nple #: AB47986  Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SitelD: WEM070-0029  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments:  ** Sat DO pH (Field)  Specific Conductance (Field)  Temperature Turbidity (Hach)  Air Temp  Sky Conditions	Water Appearance	920.8 MPN/100m  IDEM Sam  Murky  Aquatic Life?  Result  85.2 %  7.6 mg/L  7.66 SU  376 umho/cm  20.9 °C  9.84 NTU  5 Lookup  2 Lookup	nple #: AB47986  Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
E. coli  SiteID: WEM070-0029  Nater Flow Type Pool  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	P20.8 MPN/100n  IDEM Sam  Murky  Aquatic Life?  Result  85.2 %  7.6 mg/L  7.66 SU  376 umho/cm  20.9 °C  9.84 NTU  5 Lookup  2 Lookup  18 Lookup	nple #: AB47986  Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM070-0029 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Appearance	IDEM Sam Murky  Aquatic Life?  Result  85.2 % 7.6 mg/L 7.66 SU 376 umho/cm 20.9 °C 9.84 NTU 5 Lookup 2 Lookup 18 Lookup 1 Lookup	nple #: AB47986  Water Depth Canopy Closed %  Reporting Limit	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 29 of 115

SiteID: WEM070-0029 Sample Date: 7/27/2021 IDEM Sample #: AB48011 ☐ Algae? Water Flow Type Pool **Water Appearance** Clear **Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 70.4 % ASTM D888-09(C) % Sat DO 5.95 mg/L ASTM D888-09(C) pH (Field) 7.66 SU EPA 150.2 Specific Conductance (Field) 447 umho/cm SM2510B Temperature 23.7 °C SM2550B(2) Turbidity (Hach) 8.31 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48011 Result **Method** SM9223B Coliforms (Total) > 2419.6 MPN/100mL 2419.6

235.9 MPN/100mL

SM9223B

1

Weather Code Definitions							
S	C		WD	WS	AT		
Sky Co	nditions	nditions Wind Direction		Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

E. coli

Friday, October 08, 2021 Page 30 of 115

**SiteID:** WEM070-0039 USGS Hydrologic Unit: 051202070705 Stream Name: Vernon Fork Muscatatuck River County: Jennings Description: CR 500 South 38 54 39.57440 Longitude: -85 43 48.30341 Site Number: 21T-008 Drainage: 233.46 SiteID: WEM070-0039 Sample Date: 5/11/2021 IDEM Sample #: AB47013 ☐ Algae? Water Flow Type Water Appearance **Water Depth** Brown ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 89.6 % % Sat ASTM D888-09(C) DO 9.41 mg/L ASTM D888-09(C) pH (Field) 7.77 SU EPA 150.2 Specific Conductance (Field) 248 umho/cm SM2510B Temperature 13.2 °C SM2550B(2) Turbidity (Hach) 103 NTU EPA 180.1 Air Temp 3 Lookup Observation 2 Lookup Sky Conditions Observation Wind Direction 0 Lookup Observation Wind Strongth 2 Lookup Observation

Wind Strength	2 Lookup		Observation	
<b>Lab ID #</b> : 500-199136-8	Result	Reporting Limit	Method	
Alkalinity (as CaCO3)	89 mg/L	5	SM2320B	
Chloride	14 mg/L	0.4	EPA 300.0	
Hardness (as CaCO3)	100 mg/L	0.91	SM2340B	
Solids, Suspended Total, (TSS)	54 mg/L	5	SM2540D	
Solids, Total (TS)	310 mg/L	10	SM2540B	
Solids, Total Dissolved (TDS)	220 mg/L	10	SM2540C	
Sulfate	9.6 mg/L	0.2	EPA 300.0	
Calcium (Total)	30 mg/L	0.2	EPA 200.7	
Magnesium (Total)	6.3 mg/L	0.1	EPA 200.7	
COD	23 mg/L	10	SM5220C	
Nitrogen, Ammonia	0.31 mg/L	0.2	SM4500NH3-G	
Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	SM4500NO3-F	
Phosphorus, Total	0.47 mg/L	0.05	SM4500P-E	
TKN	0.98 mg/L	0.4	SM4500N(Org)-D	
TOC	7.7 mg/L	1	SM5310C	
<b>Lab ID #</b> : AB47013	Result	Reporting Limit	Method	
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B	
E. coli	1986.3 MPN/100mL	1	SM9223B	

Friday, October 08, 2021 Page 31 of 115

SiteID: WEM070-0039	<b>Sample Date:</b> 6/8/2021	IDEM Sample	<b>e #:</b> AB47574	
Water Flow Type Run	Water Appearance	Murky	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		83 %		ASTM D888-09(C)
DO		7.13 mg/L		ASTM D888-09(C)
pH (Field)		7.72 SU		EPA 150.2
Specific Conductance (Field)		375 umho/cm		SM2510B
Temperature		22.8 °C		SM2550B(2)
Turbidity (Hach)		24.8 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength		1 Lookup		Observation
<b>Lab ID #:</b> 500-200713-8		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		130 mg/L	5	SM2320B
Chloride		18 mg/L	1	EPA 300.0
Hardness (as CaCO3)		180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		30 mg/L	10	SM2540D
Solids, Total (TS)		300 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		190 mg/L	10	SM2540C
Sulfate		15 mg/L	1	EPA 300.0
Calcium (Total)		54 mg/L	0.2	EPA 200.7
Magnesium (Total)		11 mg/L	0.1	EPA 200.7
COD		18 mg/L	10	SM5220C
Nitrogen, Ammonia		0.24 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		4.1 mg/L	1	SM4500NO3-F
Phosphorus, Total		0.17 mg/L	0.05	SM4500P-E
TKN		0.73 mg/L	0.4	SM4500N(Org)-D
TOC		5.2 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47574		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		146.7 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 32 of 115

SiteID: WEM070-0039	<b>Sample Date:</b> 7/6/2021	IDEM Sample	e#: AB47722	
Vater Flow Type Run	Water Appearance	Brown	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		76.3 %		ASTM D888-09(C)
DO		6.24 mg/L		ASTM D888-09(C)
pH (Field)		7.73 SU		EPA 150.2
Specific Conductance (Field)		334 umho/cm		SM2510B
Temperature		25.6 °C		SM2550B(2)
Turbidity (Hach)		19.7 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-8		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		130 mg/L	5	SM2320B
Chloride		13 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)		160 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		19 mg/L	5	SM2540D
Solids, Total (TS)		280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		240 mg/L	10	SM2540C
Sulfate		13 mg/L	0.4	EPA 300.0
Calcium (Total)		49 mg/L	0.2	EPA 200.7
Magnesium (Total)		10 mg/L	0.1	EPA 200.7
COD		8.5 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		1.8 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.14 mg/L	0.05	SM4500P-E
TKN		0.45 mg/L	0.2	EPA 351.2
TOC		3.3 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47722		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		186 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 33 of 115

SiteID: WEM070-0039	Sample Date:	7/13/2021		IDEM Sample	<b>e #</b> : AB47981	
Water Flow Type Run	Water	Appearance	Brown		Water Depth	☐ Algae?
Nater Flow (cf/sec):	Flow	v Estimated?	☐ Aq	uatic Life?	Canopy Closed %	<b>6</b> 0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	Method
% Sat			85	%		ASTM D888-09(C)
DO			7.36	mg/L		ASTM D888-09(C)
pH (Field)			7.76	SU		EPA 150.2
Specific Conductance (Field)			254	umho/cm		SM2510B
Temperature			22.5	°C		SM2550B(2)
Turbidity (Hach)			80.7	NTU		EPA 180.1
Air Temp			5	Lookup		Observation
Sky Conditions			3	Lookup		Observation
Wind Direction			18	Lookup		Observation
Wind Strength			1	Lookup		Observation
<b>Lab ID #</b> : AB47981			Result		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
Comornio (Total)						
E. coli  SitelD: WEM070-0039	Sample Date:	7/20/2021		MPN/100mL	1 <b>e #</b> : AB48006	SM9223B
E. coli  SiteID: WEM070-0039	-	7/20/2021 Appearance				SM9223B
E. coli  SiteID: WEM070-0039  Vater Flow Type Run	Water		1732.9 Brown		e#: AB48006	☐ Algae?
E. coli  SiteID: WEM070-0039  Nater Flow Type Run  Nater Flow (cf/sec):	Water	Appearance	1732.9 Brown	IDEM Sampl	e #: AB48006 Water Depth	☐ Algae?
E. coli  SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	1732.9 Brown	IDEM Sampl	e #: AB48006 Water Depth	☐ Algae?
E. coli  SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	1732.9  Brown  Aq  Result  86.1	IDEM Sample quatic Life?	e #: AB48006 Water Depth Canopy Closed %	☐ Algae? 6 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	1732.9  Brown  Aq  Result  86.1	IDEM Sampl	e #: AB48006 Water Depth Canopy Closed %	☐ Algae? 6 0-20% Method
E. coli  SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Result  86.1 7.42 7.55	IDEM Sampl quatic Life? % mg/L SU	e #: AB48006 Water Depth Canopy Closed %	☐ Algae? 6 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	Brown  Result  86.1 7.42 7.55	IDEM Sampl quatic Life?	e #: AB48006 Water Depth Canopy Closed %	☐ Algae? 6 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  campler Comments:  Lab ID #:  % Sat DO pH (Field)	Water	Appearance	Brown  Result  86.1 7.42 7.55	JUEM Sample Juatic Life?  % mg/L SU umho/cm	e #: AB48006 Water Depth Canopy Closed %	Algae?  6 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  ampler Comments:  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)	Water	Appearance	Brown  Result  86.1 7.42 7.55 337 22.7 35.1	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB48006 Water Depth Canopy Closed %	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec): sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Brown  Result  86.1 7.42 7.55 337 22.7 35.1	JUEM Sample  Juatic Life?	e #: AB48006 Water Depth Canopy Closed %	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SitelD: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Bat DO pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions	Water	Appearance	Brown  Result  86.1 7.42 7.55 337 22.7 35.1 5	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB48006 Water Depth Canopy Closed %	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Bat DO pH (Field)  Specific Conductance (Field)  Temperature Turbidity (Hach)  Air Temp	Water	Appearance	Brown  Result  86.1 7.42 7.55 337 22.7 35.1 5	JUEM Sample  Juatic Life?  %  mg/L SU  umho/cm °C  NTU  Lookup	e #: AB48006 Water Depth Canopy Closed %	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SitelD: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Bat DO pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions	Water	Appearance	Brown  Result  86.1 7.42 7.55 337 22.7 35.1 5 2 18	"Windows and the second	e #: AB48006 Water Depth Canopy Closed %	☐ Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WEM070-0039  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Brown  Result  86.1 7.42 7.55 337 22.7 35.1 5 2 18	"Munday Cookup Lookup L	e #: AB48006 Water Depth Canopy Closed %	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM070-0039  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Brown  Result  86.1 7.42 7.55 337 22.7 35.1 5 2 18 0  Result	"Munday Cookup Lookup L	e #: AB48006  Water Depth  Canopy Closed 9  Reporting Limit	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 34 of 115

SiteID: WEM070-0039 Sample Date: 7/27/2021 IDEM Sample #: AB48031 ☐ Algae? **Water Appearance** Clear **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 84.6 % ASTM D888-09(C) % Sat DO 6.97 mg/L ASTM D888-09(C) pH (Field) 7.69 SU EPA 150.2 408 umho/cm Specific Conductance (Field) SM2510B Temperature 25.1 °C SM2550B(2) Turbidity (Hach) 17.8 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48031 Result **Method** SM9223B Coliforms (Total) > 2419.6 MPN/100mL 2419.6

65.7 MPN/100mL

SM9223B

1

Weather Code Definitions							
S	C		WD	WS	AT		
Sky Co	nditions	nditions Wind Direction		Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

E. coli

Friday, October 08, 2021 Page 35 of 115

 SiteID:
 WEM070-0020
 USGS Hydrologic Unit:
 051202070705

 Stream Name:
 Vernon Fork Muscatatuck River
 County:
 Jackson

**Description:** US 31 **Latitude:** 38 54 21.96418 **Longitude:** -85 49 15.82271

**Drainage:** 291.14 **Site Number:** 21T-009

**SiteID:** WEM070-0020 **Sample Date:** 5/12/2021 **IDEM Sample #**: AB47001

Water Flow Type Run Water Appearance Brown Water Depth Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	Method
% Sat	85.1	%		ASTM D888-09(C)
DO	8.83	mg/L		ASTM D888-09(C)
pH (Field)	7.68	SU		EPA 150.2
Specific Conductance (Field)	275	umho/cm		SM2510B
Temperature	13.8	°C		SM2550B(2)
Turbidity (Hach)	70.4	NTU		EPA 180.1
Air Temp	3	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	2	Lookup		Observation
<b>Lab ID #</b> : 500-199136-18	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	96	mg/L	5	SM2320B
Chloride	15	mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	120	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		mg/L	5	SM2540D
Solids, Total (TS)	280	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240	mg/L	10	SM2540C
Sulfate		mg/L	0.4	EPA 300.0
Calcium (Total)	35	mg/L	0.2	EPA 200.7
Magnesium (Total)	7.5	mg/L	0.1	EPA 200.7
COD	22	mg/L	10	SM5220C
Nitrogen, Ammonia	0.15	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.3	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.36	mg/L	0.05	SM4500P-E
TKN	1	mg/L	0.4	SM4500N(Org)-D
TOC		mg/L	1	SM5310C
<b>Lab ID #</b> : AB47001	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	547.5	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 36 of 115

SiteID: WEM070-0020	<b>Sample Date:</b> 6/9/2021	IDEM Sample	<b>e #:</b> AB47562	
Water Flow Type Run	Water Appearance	Brown	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		74.1 %		ASTM D888-09(C)
DO		6.49 mg/L		ASTM D888-09(C)
pH (Field)		7.32 SU		EPA 150.2
Specific Conductance (Field)		285 umho/cm		SM2510B
Temperature		21.9 °C		SM2550B(2)
Turbidity (Hach)		111 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-200713-18		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		92 mg/L	5	SM2320B
Chloride		16 mg/L	1	EPA 300.0
Hardness (as CaCO3)		130 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		100 mg/L	18	SM2540D
Solids, Total (TS)		390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		170 mg/L	10	SM2540C
Sulfate		15 mg/L	0.4	EPA 300.0
Calcium (Total)		38 mg/L	0.2	EPA 200.7
Magnesium (Total)		8.6 mg/L	0.1	EPA 200.7
COD		26 mg/L	10	SM5220C
Nitrogen, Ammonia		0.23 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		3 mg/L	0.5	SM4500NO3-F
Phosphorus, Total		0.21 mg/L	0.05	SM4500P-E
TKN		0.87 mg/L	0.4	SM4500N(Org)-D
TOC		6.6 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47562		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 37 of 115

SiteID: WEM070-0020	<b>Sample Date:</b> 7/7/2021	IDEM Sample	e#: AB47710	
Water Flow Type Riffle	Water Appearance	Clear	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		54.5 %		ASTM D888-09(C)
DO		4.42 mg/L		ASTM D888-09(C)
pH (Field)		7.45 SU		EPA 150.2
Specific Conductance (Field)		353 umho/cm		SM2510B
Temperature		26 °C		SM2550B(2)
Turbidity (Hach)		18.7 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #:</b> 500-202110-18		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		150 mg/L	5	SM2320B
Chloride		15 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)		170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		21 mg/L	5	SM2540D
Solids, Total (TS)		300 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		290 mg/L	10	SM2540C
Sulfate		14 mg/L	0.4	EPA 300.0
Calcium (Total)		52 mg/L	0.2	EPA 200.7
Magnesium (Total)		11 mg/L	0.1	EPA 200.7
COD		18 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.92 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.13 mg/L	0.05	SM4500P-E
TKN		0.49 mg/L	0.2	EPA 351.2
TOC		3.6 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47710		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		31.8 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 38 of 115

SiteID: WEM070-0020	Sample Date:	7/14/2021		IDEM Sampl	<b>e #:</b> AB47969	
Water Flow Type Run	Water	Appearance	Brown		Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow	/ Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			73.8	%		ASTM D888-09(C)
DO			6.31	mg/L		ASTM D888-09(C)
pH (Field)			7.43	SU		EPA 150.2
Specific Conductance (Field)			266	umho/cm		SM2510B
Temperature			23.1	°C		SM2550B(2)
Turbidity (Hach)			50.8	NTU		EPA 180.1
Air Temp			4	Lookup		Observation
Sky Conditions			3	Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
<b>Lab ID #</b> : AB47969			Result		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli SiteID: WEM070-0020	Sample Date:	7/21/2021	435.2	MPN/100mL	1 <b>e #</b> : AB47994	SM9223B
SiteID: WEM070-0020	-	7/21/2021 <b>Appearance</b>	435.2 Brown			SM9223B
SiteID: WEM070-0020 Nater Flow Type Run	Water		Brown		<b>e #</b> : AB47994	☐ Algae?
SiteID: WEM070-0020  Water Flow Type Run  Water Flow (cf/sec):	Water	Appearance	Brown	IDEM Sampl	e #: AB47994 Water Depth	☐ Algae?
SiteID: WEM070-0020  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water	Appearance	Brown	IDEM Sampl	e #: AB47994 Water Depth	☐ Algae?
SiteID: WEM070-0020  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Brown  Aq  Result	IDEM Sampluatic Life?	e #: AB47994 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C)
SiteID: WEM070-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sampl	e #: AB47994 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WEM070-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sample unatic Life?  % mg/L	e #: AB47994 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM070-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	Brown  Aq  Result  70.8 6 7.26	IDEM Sample unatic Life?  % mg/L	e #: AB47994 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WEM070-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water	Appearance	Brown  Aq  Result  70.8 6 7.26	Muatic Life?  % mg/L SU umho/cm	e #: AB47994 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM070-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Brown  Aq  Result  70.8 6 7.26 339	"We mg/L SU umho/cm °C	e #: AB47994 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM070-0020  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Brown  Result  70.8 6 7.26 339 23.7 30.7	"We mg/L SU umho/cm °C	e #: AB47994 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WEM070-0020  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Brown  Result  70.8 6 7.26 339 23.7 30.7 4	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB47994 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WEM070-0020  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water	Appearance	Brown  Result  70.8 6 7.26 339 23.7 30.7 4 1	"C" NTU Lookup	e #: AB47994 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WEM070-0020  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Brown  Result  70.8 6 7.26 339 23.7 30.7 4 1 18	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47994 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WEM070-0020  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Brown  Result  70.8 6 7.26 339 23.7 30.7 4 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47994 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM070-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Brown  Result  70.8 6 7.26 339 23.7 30.7 4 1 18 0  Result	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47994  Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 39 of 115

SiteID: WEM070-0020 Sample Date: 7/28/2021 IDEM Sample #: AB48019

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: turbidity data missing

Lab ID #:	Result		Reporting Limit	<u>Method</u>
	59	%		ASTM D888-09(C)
DO	4.79	mg/L		ASTM D888-09(C)
pH (Field)	7.3	SU		EPA 150.2
Specific Conductance (Field)	405	umho/cm		SM2510B
Temperature	25.9	°C		SM2550B(2)
Turbidity (Hach)		NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	18	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #</b> : AB48019	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	32.3	MPN/100mL	1	SM9223B

	Weather Code Definitions								
SC			WD	WS	AT				
Sky Cor	Sky Conditions		Vind Direction	Wind Strength	Air Temp				
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32				
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45				
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60				
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75				
5 - Mist				4 - Mod./Strong	5 - 76-85				
6 - Fog				5 - Strong	6 - > 86				
7 - Shower				6 - Gale					

Friday, October 08, 2021 Page 40 of 115

Wind Direction

Wind Strength

**SiteID:** WEM090-0015 USGS Hydrologic Unit: 051202070706 Stream Name: Vernon Fork Muscatatuck River County: Jackson Description: CR 50 North Latitude: 38 53 18.85460 Longitude: -85 51 6.07579 Site Number: 21T-010 Drainage: 363.63 SiteID: WEM090-0015 Sample Date: 5/12/2021 IDEM Sample #: AB47002 Water Appearance ☐ Algae? Water Flow Type **Water Depth** Brown ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 82.9 % ASTM D888-09(C) % Sat DO 8.55 mg/L ASTM D888-09(C) pH (Field) 7.85 SU EPA 150.2 Specific Conductance (Field) 271 umho/cm SM2510B Temperature 13.9 °C SM2550B(2) Turbidity (Hach) 60.1 NTU EPA 180.1 Air Temp 3 Lookup Observation Sky Conditions

1 Lookup

0 Lookup

2 Lookup

Observation

Observation

Observation

		•		
<b>Lab ID #</b> : 500-199136-19	<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	93 n	mg/L	5	SM2320B
Chloride	15 n	mg/L	1	EPA 300.0
Hardness (as CaCO3)	110 n	ng/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	37 n	ng/L	5	SM2540D
Solids, Total (TS)	270 m	ng/L	10	SM2540B
Solids, Total Dissolved (TDS)	230 m	ng/L	10	SM2540C
Sulfate	13 n	ng/L	0.4	EPA 300.0
Calcium (Total)	32 n	ng/L	0.2	EPA 200.7
Magnesium (Total)	7.2 m	ng/L	0.1	EPA 200.7
COD	29 n	ng/L	10	SM5220C
Nitrogen, Ammonia	0.18 n	ng/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.1 n	ng/L	0.1	SM4500NO3-F
Phosphorus, Total	0.3 n	ng/L	0.05	SM4500P-E
TKN	1 n	ng/L	0.4	SM4500N(Org)-D
TOC	7.2 n	mg/L	1	SM5310C
<b>Lab ID #</b> : AB47002	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6 N	MPN/100mL	2419.6	SM9223B
E. coli	547.5 N	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 41 of 115

	Sample Date: 6/9/2021	152m Gampio	e#: AB47563	
Vater Flow Type Run	Water Appearance	Brown	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
campler Comments: water up-	rain yesterday and today			
Lab ID #:		Result	Reporting Limit	Method
% Sat		70.8 %		ASTM D888-09(C)
DO		6.16 mg/L		ASTM D888-09(C)
pH (Field)		7.43 SU		EPA 150.2
Specific Conductance (Field)		300 umho/cm		SM2510B
Temperature		22.3 °C		SM2550B(2)
Turbidity (Hach)		91.4 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-200713-19		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		100 mg/L	5	SM2320B
Chloride		17 mg/L	1	EPA 300.0
Hardness (as CaCO3)		140 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		93 mg/L	18	SM2540D
Solids, Total (TS)		390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		170 mg/L	10	SM2540C
Sulfate		12 mg/L	1	EPA 300.0
Calcium (Total)		39 mg/L	0.2	EPA 200.7
Magnesium (Total)		9.3 mg/L	0.1	EPA 200.7
COD		26 mg/L	10	SM5220C
Nitrogen, Ammonia		0.32 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		2.7 mg/L	0.5	SM4500NO3-F
Phosphorus, Total		0.23 mg/L	0.05	SM4500P-E
TKN		1.2 mg/L	0.4	SM4500N(Org)-D
TOC		6.9 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47563		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 42 of 115

Notor Flow Type Clide	Motor Appearance	Proven	Water Denth	☐ Algae?
Vater Flow Type Glide	Water Appearance	Brown	Water Depth	□ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	Method
% Sat		60.5 %		ASTM D888-09(C)
DO		4.88 mg/L		ASTM D888-09(C)
pH (Field)		7.63 SU		EPA 150.2
Specific Conductance (Field)		361 umho/cm		SM2510B
Temperature		26.5 °C		SM2550B(2)
Turbidity (Hach)		17.4 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-19		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		150 mg/L	5	SM2320B
Chloride		15 mg/L	1	EPA 300.0
Hardness (as CaCO3)		170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		21 mg/L	5	SM2540D
Solids, Total (TS)		270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		210 mg/L	10	SM2540C
Sulfate		14 mg/L	0.4	EPA 300.0
Calcium (Total)		51 mg/L	0.2	EPA 200.7
Magnesium (Total)		11 mg/L	0.1	EPA 200.7
COD		15 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.86 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.12 mg/L	0.05	SM4500P-E
TKN		0.88 mg/L	0.2	EPA 351.2
TOC		4.1 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47711		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		48.8 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 43 of 115

SiteID: WEM090-0015	Sample Date:	7/14/2021		IDEM Sample	<b>e #:</b> AB47970	
Water Flow Type Run	Water	Appearance	Brown		Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow	v Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			67.6	%		ASTM D888-09(C)
DO			5.73	mg/L		ASTM D888-09(C)
pH (Field)			7.37	SU		EPA 150.2
Specific Conductance (Field)			259	umho/cm		SM2510B
Temperature			23.7	°C		SM2550B(2)
Turbidity (Hach)			36.8	NTU		EPA 180.1
Air Temp			5	Lookup		Observation
Sky Conditions			3	Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
<b>Lab ID #</b> : AB47970			Result		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli SiteID: WEM090-0015	Sample Date:	7/21/2021	325.5	MPN/100mL  IDEM Sample	1 e #: AB47995	SM9223B
SiteID: WEM090-0015	-	7/21/2021 <b>Appearance</b>	325.5 Brown	IDEM Sample		SM9223B
SiteID: WEM090-0015 Water Flow Type Run	Water		Brown	IDEM Sample	e#: AB47995	☐ Algae?
SiteID: WEM090-0015  Water Flow Type Run  Water Flow (cf/sec):	Water	Appearance	Brown	IDEM Sampl	e #: AB47995 Water Depth	☐ Algae?
SiteID: WEM090-0015  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water	Appearance	Brown	IDEM Sampl	e #: AB47995 Water Depth	☐ Algae?
SiteID: WEM090-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sample uatic Life?	e #: AB47995 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C)
SiteID: WEM090-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sampl	e #: AB47995 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WEM090-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result  61.8  5.22  7.27	IDEM Sample uatic Life?  % mg/L SU	e #: AB47995 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM090-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	Brown  Result  61.8 5.22 7.27 267	Muatic Life?  % mg/L SU umho/cm	e #: AB47995 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WEM090-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat  DO  pH (Field)	Water	Appearance	Brown  Aq  Result  61.8  5.22  7.27	Muatic Life?  % mg/L SU umho/cm	e #: AB47995 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM090-0015  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Brown  Result  61.8 5.22 7.27 267	## Minute of the control of the cont	e #: AB47995 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM090-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Brown  Result  61.8 5.22 7.27 267 23.8 18.1	## Minute of the control of the cont	e #: AB47995 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WEM090-0015  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Brown  Result  61.8 5.22 7.27 267 23.8 18.1 4	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB47995 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WEM090-0015  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water	Appearance	Brown  Result  61.8 5.22 7.27 267 23.8 18.1 4	"C" NTU Lookup	e #: AB47995 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WEM090-0015  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Brown  Result  61.8 5.22 7.27 267 23.8 18.1 4 1 18	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47995 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WEM090-0015  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Brown  Result  61.8 5.22 7.27 267 23.8 18.1 4 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47995 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM090-0015 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Brown  Result  61.8 5.22 7.27 267 23.8 18.1 4 1 18 0  Result	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47995  Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 44 of 115

SiteID: WEM090-0015 Sample Date: 7/28/2021 IDEM Sample #: AB48020 ☐ Algae? **Water Appearance** Murky **Water Depth** Water Flow Type Pool ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 61.6 % ASTM D888-09(C) % Sat DO 5.03 mg/L ASTM D888-09(C) pH (Field) 7.39 SU EPA 150.2 Specific Conductance (Field) 383 umho/cm SM2510B 25.8 °C Temperature SM2550B(2) Turbidity (Hach) 19.5 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup Lab ID #: AB48020 **Reporting Limit** Result **Method** 

> 2419.6 MPN/100mL

42.8 MPN/100mL

SM9223B

SM9223B

2419.6

1

	Weather Code Definitions								
S	C		WD	WS	AT				
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp				
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32				
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45				
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60				
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75				
5 - Mist				4 - Mod./Strong	5 - 76-85				
6 - Fog				5 - Strong	6 - > 86				
7 - Shower				6 - Gale					

Coliforms (Total)

E. coli

Friday, October 08, 2021 Page 45 of 115

SiteID:WEM080-0015USGS Hydrologic Unit:051202070704Stream Name:Sandy BranchCounty:Jackson

**Description:** US 31 **Latitude:** 38 55 52.33966 **Longitude:** -85 50 2.43408

**Drainage:** 7.89 **Site Number:** 21T-011

**SiteID:** WEM080-0015 **Sample Date:** 5/12/2021 **IDEM Sample #:** AB47000

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	Method
% Sat	93.5	%		ASTM D888-09(C)
DO	10	mg/L		ASTM D888-09(C)
pH (Field)	7.94	SU		EPA 150.2
Specific Conductance (Field)	557	umho/cm		SM2510B
Temperature	12.3	°C		SM2550B(2)
Turbidity (Hach)	6.54	NTU		EPA 180.1
Air Temp	3	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : 500-199136-17	<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	190	mg/L	5	SM2320B
Chloride	42	mg/L	2	EPA 300.0
Hardness (as CaCO3)	230	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	< 5	mg/L	5	SM2540D
Solids, Total (TS)	420	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370	mg/L	10	SM2540C
Sulfate	27	mg/L	1	EPA 300.0
Calcium (Total)	64	mg/L	0.2	EPA 200.7
Magnesium (Total)	17	mg/L	0.1	EPA 200.7
COD	< 10	mg/L	10	SM5220C
Nitrogen, Ammonia	0.27	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.2	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.085	mg/L	0.05	SM4500P-E
TKN	0.6	mg/L	0.4	SM4500N(Org)-D
TOC		mg/L	1	SM5310C
<b>Lab ID #</b> : AB47000	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	167	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 46 of 115

SitelD: WEM080-0015	Sample Date: 6/9/2021	IDEM Samp	ole #: AB47561	
Water Flow Type Run	Water Appearance	Brown	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments: Water up	due to rain			
Lab ID #:		Result	Reporting Limit	Method
% Sat		63.7 %		ASTM D888-09(C)
DO		5.64 mg/L		ASTM D888-09(C)
pH (Field)		7.13 SU		EPA 150.2
Specific Conductance (Field)		206 umho/cm		SM2510B
Temperature		21.3 °C		SM2550B(2)
Turbidity (Hach)		81.9 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		0 Lookup		Observation
Lab ID #: 500-200713-17		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		60 mg/L	5	SM2320B
Chloride		18 mg/L	1	EPA 300.0
Hardness (as CaCO3)		85 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		95 mg/L	15	SM2540D
Solids, Total (TS)		310 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		110 mg/L	10	SM2540C
Sulfate		7.6 mg/L	1	EPA 300.0
Calcium (Total)		25 mg/L	0.2	EPA 200.7
Magnesium (Total)		5.6 mg/L	0.1	EPA 200.7
COD		24 mg/L	10	SM5220C
Nitrogen, Ammonia		0.36 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.99 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.34 mg/L	0.05	SM4500P-E
TKN		1.1 mg/L	0.4	SM4500N(Org)-D
TOC		6.8 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47561		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 47 of 115

<b>SiteID:</b> WEM080-0015	<b>Sample Date:</b> 7/7/2021	IDEM Sample	<b>e #</b> : AB47709	
Water Flow Type Run	Water Appearance	Clear	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		77.7 %		ASTM D888-09(C)
DO		6.61 mg/L		ASTM D888-09(C)
pH (Field)		7.72 SU		EPA 150.2
Specific Conductance (Field)		390 umho/cm		SM2510B
Temperature		23.4 °C		SM2550B(2)
Turbidity (Hach)		8.96 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-17		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		130 mg/L	5	SM2320B
Chloride		37 mg/L	2	EPA 300.0
Hardness (as CaCO3)		170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		8.6 mg/L	5	SM2540D
Solids, Total (TS)		310 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		350 mg/L	10	SM2540C
Sulfate		18 mg/L	2	EPA 300.0
Calcium (Total)		47 mg/L	0.2	EPA 200.7
Magnesium (Total)		12 mg/L	0.1	EPA 200.7
COD		18 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.58 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.13 mg/L	0.05	SM4500P-E
TKN		0.37 mg/L	0.2	EPA 351.2
TOC		4.7 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47709		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		2419.6 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 48 of 115

SiteID: WEM080-0015	<b>Sample Date:</b> 7/14/2021	ID	DEM Sample	#: AB47968	
Water Flow Type Run	Water Appearance	Clear		Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	☐ Aqua	atic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	Method
% Sat		81.4 %	, o		ASTM D888-09(C)
DO		7.18 m	ng/L		ASTM D888-09(C)
pH (Field)		7.68 SI	U		EPA 150.2
Specific Conductance (Field)		498 ur	mho/cm		SM2510B
Temperature		21.5 °C	2		SM2550B(2)
Turbidity (Hach)		5.98 N	TU		EPA 180.1
Air Temp		4 Lo	ookup		Observation
Sky Conditions		3 Lo	ookup		Observation
Wind Direction		18 Lo			Observation
Wind Strength			ookup		Observation
<b>Lab ID #</b> : AB47968		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6 M	IPN/100mL	2419.6	SM9223B
					ON 40000D
E. coli SiteID: WEM080-0015	Sample Date: 7/21/2021		IPN/100mL  DEM Sample	1 •#: AB47993	SM9223B
SiteID: WEM080-0015	Sample Date: 7/21/2021 Water Appearance		DEM Sample		SM9223B
SiteID: WEM080-0015  Water Flow Type Run		ID Clear	DEM Sample	e#: AB47993	☐ Algae?
SiteID: WEM080-0015  Water Flow Type Run  Water Flow (cf/sec):	Water Appearance	ID Clear	DEM Sample	#: AB47993 Water Depth	☐ Algae?
SiteID: WEM080-0015  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	ID Clear	DEM Sample	#: AB47993 Water Depth	☐ Algae?
SiteID: WEM080-0015  Nater Flow Type Run  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Clear Aqua  Result	DEM Sample	#: AB47993 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WEM080-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear Aqua	DEM Sample	#: AB47993 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WEM080-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Clear Aqua  Result	DEM Sample atic Life?	#: AB47993 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WEM080-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Clear Aqua  Result  86.5 % 7.74 m 7.78 S	DEM Sample atic Life?	#: AB47993 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WEM080-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Clear Aqua  Result  86.5 % 7.74 m 7.78 S	DEM Sample atic Life?	#: AB47993 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM080-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Clear Aqua  Result  86.5 % 7.74 m 7.78 SI 576 ur	DEM Sample atic Life?	#: AB47993 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM080-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result  86.5 % 7.74 m 7.78 SI 576 ur 20.8 °C 11.9 N	DEM Sample atic Life?	#: AB47993 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WEM080-0015  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Result  86.5 % 7.74 m 7.78 SI 576 ur 20.8 °C 11.9 N°	DEM Sample atic Life?  ag/L U mho/cm C TU	#: AB47993 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WEM080-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Result  86.5 % 7.74 m 7.78 SI 576 ur 20.8 °C 11.9 N°	DEM Sample atic Life?  ag/L U mho/cm C TU cookup cookup	#: AB47993 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WEM080-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance	Result  86.5 % 7.74 m 7.78 Si 576 ur 20.8 °C 11.9 N' 4 Lc 1 Lc 18 Lc	DEM Sample atic Life?  ag/L U mho/cm C TU cookup cookup	#: AB47993 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation
SiteID: WEM080-0015  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result  86.5 % 7.74 m 7.78 Si 576 ur 20.8 °C 11.9 N' 4 Lc 1 Lc 18 Lc	DEM Sample atic Life?  ag/L U mho/cm C TU ookup ookup ookup	#: AB47993 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM080-0015 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Appearance	Result  86.5 % 7.74 m 7.78 Si 576 ur 20.8 °C 11.9 N' 4 Lc 1 Lc 0 Lc	DEM Sample atic Life?  ag/L U mho/cm C TU ookup ookup ookup ookup	e #: AB47993 Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 49 of 115

SiteID: WEM080-0015 Sample Date: 7/28/2021 IDEM Sample #: AB48018 ☐ Algae? Water Flow Type Pool **Water Appearance** Clear **Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 82 % ASTM D888-09(C) % Sat DO 7.27 mg/L ASTM D888-09(C) pH (Field) 7.76 SU EPA 150.2 642 umho/cm Specific Conductance (Field) SM2510B Temperature 21.2 °C SM2550B(2) Turbidity (Hach) 4.34 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48018 Result **Method** 

> 2419.6 MPN/100mL

224.7 MPN/100mL

SM9223B

SM9223B

2419.6

1

		W	eather Code Def	initions	
S	C		WD	WS	AT
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

Coliforms (Total)

E. coli

Friday, October 08, 2021 Page 50 of 115

Sky Conditions

SiteID: WEM080-0014 **USGS Hydrologic Unit:** 051202070704 Stream Name: Mutton Creek Ditch County: Jackson Description: CR 400 North 38 56 26.63883 Longitude: -85 48 56.24634 Drainage: 29.58 Site Number: 21T-012 SiteID: WEM080-0014 Sample Date: 5/12/2021 IDEM Sample #: AB46999 ☐ Algae? Water Flow Type **Water Appearance** Water Depth Glide Brown ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 70.1 % % Sat ASTM D888-09(C) 7.32 mg/L DO ASTM D888-09(C) pH (Field) 7.65 SU EPA 150.2 Specific Conductance (Field) 318 umho/cm SM2510B 13.3 °C Temperature SM2550B(2) Turbidity (Hach) 16.9 NTU EPA 180.1 Air Temp 3 Lookup Observation

		·	
Wind Direction	0 Looku	р	Observation
Wind Strength	2 Looku	р	Observation
L <b>ab ID #</b> : 500-199136-16	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	110 mg/L	5	SM2320B
Chloride	17 mg/L	1	EPA 300.0
Hardness (as CaCO3)	120 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	12 mg/L	5	SM2540D
Solids, Total (TS)	270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	220 mg/L	10	SM2540C
Sulfate	15 mg/L	0.4	EPA 300.0
Calcium (Total)	34 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.6 mg/L	0.1	EPA 200.7
COD	11 mg/L	10	SM5220C
Nitrogen, Ammonia	0.19 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.17 mg/L	0.05	SM4500P-E
TKN	0.77 mg/L	0.4	SM4500N(Org)-D
TOC	6.4 mg/L	1	SM5310C
_ab ID #: AB46999	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/	100mL 2419.6	SM9223B
E. coli	196.8 MPN/	100mL 1	SM9223B

1 Lookup

Observation

Friday, October 08, 2021 Page 51 of 115

SiteID: WEM080-0014 Sa	ample Date: 6/9/2021	IDEM Samp	le #: AB47560	
Water Flow Type Run	Water Appearance	Brown	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments: Water up				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		72.7 %		ASTM D888-09(C)
DO		6.48 mg/L		ASTM D888-09(C)
pH (Field)		7.43 SU		EPA 150.2
Specific Conductance (Field)		340 umho/cm		SM2510B
Temperature		21 °C		SM2550B(2)
Turbidity (Hach)		84 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-200713-16		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		110 mg/L	5	SM2320B
Chloride		22 mg/L	1	EPA 300.0
Hardness (as CaCO3)		150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		92 mg/L	16	SM2540D
Solids, Total (TS)		410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		200 mg/L	10	SM2540C
Sulfate		16 mg/L	1	EPA 300.0
Calcium (Total)		41 mg/L	0.2	EPA 200.7
Magnesium (Total)		12 mg/L	0.1	EPA 200.7
COD		24 mg/L	10	SM5220C
Nitrogen, Ammonia		0.35 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		2.8 mg/L	0.5	SM4500NO3-F
Phosphorus, Total		0.26 mg/L	0.05	SM4500P-E
TKN		1.2 mg/L	0.4	SM4500N(Org)-D
TOC		7.1 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47560		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 52 of 115

**SiteID:** WEM080-0014 **Sample Date:** 7/7/2021 **IDEM Sample #:** AB47708

Water Flow Type Stagnant Water Appearance Murky Water Depth 

Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ☑ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	31.6	%		ASTM D888-09(C)
DO	2.64	mg/L		ASTM D888-09(C)
pH (Field)	7.29	SU		EPA 150.2
Specific Conductance (Field)	394	umho/cm		SM2510B
Temperature	24.6	°C		SM2550B(2)
Turbidity (Hach)	7.93	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #:</b> 500-202110-16	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	150	mg/L	5	SM2320B
Chloride	23	mg/L	1	EPA 300.0
Hardness (as CaCO3)	180	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	7.2	mg/L	5	SM2540D
Solids, Total (TS)	310	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320	mg/L	10	SM2540C
Sulfate	16	mg/L	1	EPA 300.0
Calcium (Total)	50	mg/L	0.2	EPA 200.7
Magnesium (Total)	14	mg/L	0.1	EPA 200.7
COD	18	mg/L	10	SM5220C
Nitrogen, Ammonia		mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	2	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.15	mg/L	0.05	SM4500P-E
TKN	0.61	mg/L	0.2	EPA 351.2
TOC	4.3	mg/L	1	SM5310C
<b>Lab ID #</b> : AB47708	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	148.3	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 53 of 115

SiteID: WEM080-0014	Sample Date:	7/14/2021		IDEM Sample	e #: AB47967	
Vater Flow Type Pool	Water	Appearance	Murky		Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flov	v Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			64.1	%		ASTM D888-09(C)
DO			5.5	mg/L		ASTM D888-09(C)
pH (Field)			7.39	SU		EPA 150.2
Specific Conductance (Field)			303	umho/cm		SM2510B
Temperature			22.9	°C		SM2550B(2)
Turbidity (Hach)			26.1	NTU		EPA 180.1
Air Temp			4	Lookup		Observation
Sky Conditions			3	Lookup		Observation
Wind Direction			18	Lookup		Observation
Wind Strength			0	Lookup		Observation
<b>Lab ID #</b> : AB47967			Result		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli SitelD: WEM080-0014	Sample Date:	7/21/2021	1732.9	MPN/100mL  IDEM Sample	1 e #: AB47992	SM9223B
E. coli SiteID: WEM080-0014	Sample Date:	7/21/2021 <b>Appearance</b>	1732.9 Murky	IDEM Sample		SM9223B
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant	Sample Date:		Murky	IDEM Sample	e#: AB47992	☐ Algae?
E. coli SiteID: WEM080-0014  Nater Flow Type Stagnant  Nater Flow (cf/sec):	Sample Date:	Appearance	Murky	IDEM Sample	e #: AB47992 Water Depth	☐ Algae?
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:	Sample Date:	Appearance	Murky	IDEM Sample	e #: AB47992 Water Depth	☐ Algae?
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Sample Date: Water	Appearance	Murky Aq Result	IDEM Sample quatic Life?	e #: AB47992 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Sample Date: Water	Appearance	Murky Aq Result	IDEM Samplo	e #: AB47992 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:	Sample Date: Water	Appearance	Murky Aq Result	IDEM Sample uatic Life?  % mg/L	e #: AB47992 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Sample Date: Water	Appearance	Murky  Result  56.6 4.87 7.27 304	Muatic Life?  % mg/L SU umho/cm	e #: AB47992 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Sample Date: Water	Appearance	Murky  Aq  Result  56.6 4.87 7.27	Muatic Life?  % mg/L SU umho/cm	e #: AB47992 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)	Sample Date: Water	Appearance	Murky  Result  56.6 4.87 7.27 304 22.8	Muatic Life?  % mg/L SU umho/cm	e #: AB47992 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Sample Date: Water	Appearance	Murky  Result  56.6 4.87 7.27 304 22.8 13.6	## Minute of the control of the cont	e #: AB47992 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Sample Date: Water	Appearance	Murky  Result  56.6 4.87 7.27 304 22.8 13.6 4	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB47992 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Sample Date: Water	Appearance	Murky  Result  56.6 4.87 7.27 304 22.8 13.6 4	"C" NTU Lookup	e #: AB47992 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation
E. coli  SitelD: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Sample Date: Water	Appearance	Murky  Result  56.6 4.87 7.27 304 22.8 13.6 4 1 18	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB47992 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
E. coli  SiteID: WEM080-0014  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Sample Date: Water	Appearance	Murky  Result  56.6 4.87 7.27 304 22.8 13.6 4 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB47992 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
E. coli  SiteID: WEM080-0014  Nater Flow Type Stagnant  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Sample Date: Water	Appearance	Murky  Result  56.6 4.87 7.27 304 22.8 13.6 4 1 18 0  Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB47992  Water Depth Canopy Closed %  Reporting Limit	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 54 of 115

SiteID: WEM080-0014 Sample Date: 7/28/2021 IDEM Sample #: AB48017 ☐ Algae? Water Flow Type Pool **Water Appearance** Clear **Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 39.2 % ASTM D888-09(C) % Sat DO 3.25 mg/L ASTM D888-09(C) 7.24 SU pH (Field) EPA 150.2 Specific Conductance (Field) 372 umho/cm SM2510B Temperature 24.8 °C SM2550B(2) Turbidity (Hach) 12.8 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48017 Result **Method** 

> 2419.6 MPN/100mL

84.2 MPN/100mL

SM9223B

SM9223B

2419.6

1

		We	eather Code Defi	initions	
S	C		WD	WS	AT
Sky Cor	nditions	V	Vind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

Coliforms (Total)

E. coli

Friday, October 08, 2021 Page 55 of 115

 SiteID:
 WEM-07-0016
 USGS Hydrologic Unit:
 051202070704

 Stream Name:
 Tributary of Mutton Creek
 County:
 Jackson

**Description:** CR 700 North **Latitude:** 38 59 2.20225 **Longitude:** -85 49 42.77626

**Drainage:** Site Number: 21T-013

**SiteID**: WEM-07-0016 **Sample Date**: 5/12/2021 **IDEM Sample #**: AB46995

Water Flow Type Riffle Water Appearance Clear Water Depth 

Algae?

Water Flow (cf/sec): 

Flow Estimated? 

Aquatic Life? 

Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	101.6	%		ASTM D888-09(C)
DO	11.1	mg/L		ASTM D888-09(C)
pH (Field)	7.94			EPA 150.2
Specific Conductance (Field)	389	umho/cm		SM2510B
Temperature	11.4	°C		SM2550B(2)
Turbidity (Hach)	8.29	NTU		EPA 180.1
Air Temp	3	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : 500-199136-12	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	140	mg/L	5	SM2320B
Chloride	23	mg/L	1	EPA 300.0
Hardness (as CaCO3)	160	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5.5	mg/L	5	SM2540D
Solids, Total (TS)	310	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	290	mg/L	10	SM2540C
Sulfate	17	mg/L	1	EPA 300.0
Calcium (Total)	43	mg/L	0.2	EPA 200.7
Magnesium (Total)	13	mg/L	0.1	EPA 200.7
COD	10	mg/L	10	SM5220C
Nitrogen, Ammonia	0.21	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.2	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.076	mg/L	0.05	SM4500P-E
TKN	0.56	mg/L	0.4	SM4500N(Org)-D
TOC	3.3	mg/L	1	SM5310C
<b>Lab ID #:</b> AB46995	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		MPN/100mL	2419.6	SM9223B
E. coli	325.5	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 56 of 115

SiteID: WEM-07-0016	<b>Sample Date:</b> 6/9/2021	IDEI	M Sample #: AB47556	
Water Flow Type Riffle	Water Appearance	Brown	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatio	Life? Canopy Closed %	0-20%
Sampler Comments: Very hig	h flow but in banks. Rain overnigl	ht		
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		79.2 %		ASTM D888-09(C)
DO		7.12 mg/l	<u>L</u>	ASTM D888-09(C)
pH (Field)		7.22 SU		EPA 150.2
Specific Conductance (Field)		222 umh	o/cm	SM2510B
Temperature		20.6 °C		SM2550B(2)
Turbidity (Hach)		253 NTL	J	EPA 180.1
Air Temp		4 Lool	кир	Observation
Sky Conditions		5 Lool	кир	Observation
Wind Direction		18 Look	кир	Observation
Wind Strength		1 Look	kup	Observation
<b>Lab ID #</b> : 500-200713-12		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		62 mg/l	_ 5	SM2320B
Chloride		14 mg/l	_ 1	EPA 300.0
Hardness (as CaCO3)		100 mg/l	0.91	SM2340B
Solids, Suspended Total, (TSS)		290 mg/l	_ 36	SM2540D
Solids, Total (TS)		530 mg/l	10	SM2540B
Solids, Total Dissolved (TDS)		130 mg/l	_ 10	SM2540C
Sulfate		10 mg/l	_ 1	EPA 300.0
Calcium (Total)		28 mg/l	0.2	EPA 200.7
Magnesium (Total)		7.5 mg/l	0.1	EPA 200.7
COD		49 mg/l	10	SM5220C
Nitrogen, Ammonia		0.67 mg/l	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		2.7 mg/l	_ 1	SM4500NO3-F
Phosphorus, Total		0.85 mg/l	0.05	SM4500P-E
TKN		2.3 mg/l	_ 0.4	SM4500N(Org)-D
TOC		19 mg/l	10	SM5310C
<b>Lab ID #</b> : AB47556		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN		SM9223B
E. coli		> 2419.6 MPN	N/100mL 2419.6	SM9223B

Friday, October 08, 2021 Page 57 of 115

<b>SiteID:</b> WEM-07-0016	<b>Sample Date:</b> 7/7/2021	IDEM Sampl	le #: AB47704	
Water Flow Type Run	Water Appearance	Brown	Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		90.4 %		ASTM D888-09(C)
DO		7.8 mg/L		ASTM D888-09(C)
pH (Field)		7.81 SU		EPA 150.2
Specific Conductance (Field)		302 umho/cm		SM2510B
Temperature		22.7 °C		SM2550B(2)
Turbidity (Hach)		34.2 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-12		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		110 mg/L	5	SM2320B
Chloride		16 mg/L	1	EPA 300.0
Hardness (as CaCO3)		140 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		24 mg/L	5	SM2540D
Solids, Total (TS)		260 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		220 mg/L	10	SM2540C
Sulfate		12 mg/L	1	EPA 300.0
Calcium (Total)		39 mg/L	0.2	EPA 200.7
Magnesium (Total)		11 mg/L	0.1	EPA 200.7
COD		28 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		1.7 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.33 mg/L	0.05	SM4500P-E
TKN		0.65 mg/L	0.2	EPA 351.2
TOC		6 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47704		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		2419.6 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 58 of 115

SiteID: WEM-07-0016	<b>Sample Date:</b> 7/14/2021		IDEM Sample	#: AB47963	
Vater Flow Type Riffle	Water Appearance	Murky	,	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aqı	uatic Life?	Canopy Closed %	0-20%
ampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		88.2	%		ASTM D888-09(C)
DO		7.85	-		ASTM D888-09(C)
pH (Field)		7.59	SU		EPA 150.2
Specific Conductance (Field)		275	umho/cm		SM2510B
Temperature		21	°C		SM2550B(2)
Turbidity (Hach)		10.1	NTU		EPA 180.1
Air Temp		4	Lookup		Observation
Sky Conditions		3	Lookup		Observation
Wind Direction		18	Lookup		Observation
Wind Strength		0	Lookup		Observation
<b>Lab ID #</b> : AB47963		Result		Reporting Limit	Method
Coliforms (Total)		> 2410 6	MPN/100mL	2419.6	SM9223B
Collionns (Total)		/ Z+15.0			
E. coli	Sample Date: 7/21/2021	648.8	MPN/100mL	1	SM9223B
E. coli	Sample Date: 7/21/2021 Water Appearance	648.8	MPN/100mL	1	SM9223B
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run	-	Clear	MPN/100mL	1 •#: AB47988	☐ Algae?
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run  Vater Flow (cf/sec):	Water Appearance	Clear	MPN/100mL	1 #: AB47988 Water Depth	☐ Algae?
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run  Vater Flow (cf/sec):  sampler Comments:	Water Appearance	Clear	MPN/100mL	1 #: AB47988 Water Depth	☐ Algae?
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run  Vater Flow (cf/sec):  ampler Comments:  Lab ID #:	Water Appearance	Clear Aqu Result	MPN/100mL  IDEM Sample  Justic Life?	1  #: AB47988  Water Depth  Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run  Vater Flow (cf/sec):  ampler Comments:  Lab ID #:	Water Appearance	Clear Aqu	MPN/100mL  IDEM Sample  Justic Life?	1  #: AB47988  Water Depth  Canopy Closed %	☐ Algae? 0-20% Method
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run  Vater Flow (cf/sec):  ampler Comments:  Lab ID #:	Water Appearance	Clear  Result  91.9 8.17 7.6	MPN/100mL  IDEM Sample  uatic Life?  % mg/L SU	1  #: AB47988  Water Depth  Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Clear  Result  91.9 8.17 7.6	MPN/100mL  IDEM Sample  uatic Life?  %  mg/L	1  #: AB47988  Water Depth  Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  itelD: WEM-07-0016  /ater Flow Type Run  /ater Flow (cf/sec): ampler Comments:  _ab ID #:  % Sat DO pH (Field)	Water Appearance	Clear  Result  91.9 8.17 7.6	MPN/100mL  IDEM Sample  Justic Life?	1  #: AB47988  Water Depth  Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  iitelD: WEM-07-0016  /ater Flow Type Run  /ater Flow (cf/sec): ampler Comments:  _ab ID #:  % Sat	Water Appearance	Clear  Result  91.9 8.17 7.6 395	MPN/100mL  IDEM Sample  Justic Life?	1  #: AB47988  Water Depth  Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  itelD: WEM-07-0016  /ater Flow Type Run  /ater Flow (cf/sec): ampler Comments:  _ab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Clear  Result  91.9 8.17 7.6 395 21.1 7.34	MPN/100mL  IDEM Sample  Justic Life?	1  #: AB47988  Water Depth  Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Base	Water Appearance	Clear  Result  91.9 8.17 7.6 395 21.1 7.34 4	MPN/100mL  IDEM Sample  Justic Life?	1  #: AB47988  Water Depth  Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM-07-0016  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Clear  Result  91.9 8.17 7.6 395 21.1 7.34 4	MPN/100mL  IDEM Sample  Justic Life?	1  #: AB47988  Water Depth  Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Base	Water Appearance	Clear  Result  91.9 8.17 7.6 395 21.1 7.34 4 1 18	MPN/100mL  IDEM Sample  Juatic Life?	1  #: AB47988  Water Depth  Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
E. coli  SiteID: WEM-07-0016  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  ** Sat DO pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions  Wind Direction  Wind Strength	Water Appearance	Clear  Result  91.9 8.17 7.6 395 21.1 7.34 4 1 18	MPN/100mL  IDEM Sample  Justic Life?   Memory  Memory	1  #: AB47988  Water Depth  Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation
E. coli  SiteID: WEM-07-0016  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Clear  Result  91.9 8.17 7.6 395 21.1 7.34 4 1 18 0  Result	MPN/100mL  IDEM Sample  Justic Life?   Memory  Memory	#: AB47988 Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 59 of 115

SiteID: WEM-07-0016 Sample Date: 7/28/2021 IDEM Sample #: AB48013 ☐ Algae? **Water Appearance** Clear **Water Depth** Water Flow Type Riffle ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 73.8 % ASTM D888-09(C) % Sat DO 6.46 mg/L ASTM D888-09(C) 7.68 SU pH (Field) EPA 150.2 416 umho/cm Specific Conductance (Field) SM2510B Temperature 21.8 °C SM2550B(2) Turbidity (Hach) 6.04 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48013 Result **Method** SM9223B Coliforms (Total) > 2419.6 MPN/100mL 2419.6

148.3 MPN/100mL

SM9223B

1

	Weather Code Definitions						
S	SC .		WD	WS	AT		
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

E. coli

Friday, October 08, 2021 Page 60 of 115

WEM080-0027 **USGS Hydrologic Unit:** 051202070704 SiteID: Stream Name: Mutton Creek County: Jackson Description: CR 800 North Latitude: 38 59 55.12075 Longitude: -85 48 22.97647 Drainage: 18.19 Site Number: 21T-014 SiteID: WEM080-0027 Sample Date: 5/11/2021 IDEM Sample #: AB46992 ☐ Algae? Clear **Water Depth Water Flow Type** Run Water Appearance ☐ Flow Estimated? Aquatic Life? Water Flow (cf/sec): Canopy Closed % Sampler Comments: Lab ID #: Result **Reporting Limit** Method 88.7 % ASTM D888-09(C) % Sat 9.48 mg/L ASTM D888-09(C) DO 7.46 SU EPA 150.2 pH (Field) Specific Conductance (Field) 295 umho/cm SM2510B 12.3 °C Temperature SM2550B(2) 19.9 NTU Turbidity (Hach) EPA 180.1 3 Lookup Air Temp Observation Sky Conditions 1 Lookup Observation Wind Direction 0 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: 500-199136-1 **Reporting Limit** Result **Method** Alkalinity (as CaCO3) 100 mg/L 5 SM2320B Chloride 15 mg/L 0.4 EPA 300.0 Hardness (as CaCO3) 120 mg/L 0.91 SM2340B Solids, Suspended Total, (TSS) 9.5 mg/L 5 SM2540D Solids, Total (TS) 300 mg/L 10 SM2540B Solids, Total Dissolved (TDS) 240 mg/L 10 SM2540C Sulfate 19 mg/L 0.4 EPA 300.0 Calcium (Total) 33 mg/L 0.2 EPA 200.7 Magnesium (Total) 9.3 mg/L 0.1 EPA 200.7 COD 19 mg/L 10 SM5220C Nitrogen, Ammonia 0.12 mg/L 0.2 SM4500NH3-G Nitrogen, Nitrate+Nitrite 1.3 mg/L 0.1 SM4500NO3-F 0.05 SM4500P-E Phosphorus, Total 0.13 mg/L 0.63 mg/L SM4500N(Org)-D TKN 0.4 TOC 6.1 mg/L 1 SM5310C Lab ID #: AB46992 Result **Reporting Limit Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B

Friday, October 08, 2021 Page 61 of 115

E. coli

410.6 MPN/100mL

SM9223B

1

	•			□
Vater Flow Type Riffle	Water Appearance	Clear	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		73.6 %		ASTM D888-09(C)
DO		6.52 mg/L		ASTM D888-09(C)
pH (Field)		7.54 SU		EPA 150.2
Specific Conductance (Field)		395 umho/cm		SM2510B
Temperature		21.2 °C		SM2550B(2)
Turbidity (Hach)		14.8 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-200713-1		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		130 mg/L	5	SM2320B
Chloride		23 mg/L	2	EPA 300.0
Hardness (as CaCO3)		180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		17 mg/L	10	SM2540D
Solids, Total (TS)		260 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		210 mg/L	10	SM2540C
Sulfate		25 mg/L	2	EPA 300.0
Calcium (Total)		50 mg/L	0.2	EPA 200.7
Magnesium (Total)		14 mg/L	0.1	EPA 200.7
COD		18 mg/L	10	SM5220C
Nitrogen, Ammonia		0.27 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		3.5 mg/L	1	SM4500NO3-F
Phosphorus, Total		0.14 mg/L	0.05	SM4500P-E
TKN		0.76 mg/L	0.4	SM4500N(Org)-D
TOC		5.6 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47553		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 62 of 115

SiteID: WEM080-0027	<b>Sample Date:</b> 7/6/2021	IDEM Sample		
Vater Flow Type Riffle	Water Appearance	Clear	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		56.3 %		ASTM D888-09(C)
DO		4.78 mg/L		ASTM D888-09(C)
pH (Field)		7.5 SU		EPA 150.2
Specific Conductance (Field)		374 umho/cm		SM2510B
Temperature		23.5 °C		SM2550B(2)
Turbidity (Hach)		15.8 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-1		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		150 mg/L	5	SM2320B
Chloride		26 mg/L	1	EPA 300.0
Hardness (as CaCO3)		170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		13 mg/L	5	SM2540D
Solids, Total (TS)		250 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		240 mg/L	10	SM2540C
Sulfate		17 mg/L	1	EPA 300.0
Calcium (Total)		47 mg/L	0.2	EPA 200.7
Magnesium (Total)		14 mg/L	0.1	EPA 200.7
COD		16 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.55 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.084 mg/L	0.05	SM4500P-E
TKN		0.45 mg/L	0.2	EPA 351.2
TOC		4.6 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47701		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		1203.3 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 63 of 115

SiteID: WEM080-0027	Sample Date:	7/13/2021		IDEM Sample	e #: AB	47960	
Water Flow Type Riffle	Water A	ppearance	Brown		Water De	epth	☐ Algae?
Water Flow (cf/sec):	☐ Flow	Estimated?	☐ Aqı	uatic Life?	Cano	py Closed %	0-20%
Sampler Comments:							
Lab ID #:		<u>!</u>	Result		Repo	orting Limit	<u>Method</u>
% Sat			81.2	%			ASTM D888-09(C)
DO			7.05	mg/L			ASTM D888-09(C)
pH (Field)			7.43	SU			EPA 150.2
Specific Conductance (Field)			241	umho/cm			SM2510B
Temperature			22.4	°C			SM2550B(2)
Turbidity (Hach)			52.5	NTU			EPA 180.1
Air Temp			4	Lookup			Observation
Sky Conditions			4	Lookup			Observation
Wind Direction				Lookup			Observation
Wind Strength			0	Lookup			Observation
<b>Lab ID #</b> : AB47960		<u> </u>	Result		Repo	orting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL		2419.6	SM9223B
Collionns (Total)		-					
E. coli	Sample Date:		> 2419.6	MPN/100mL	<b>e#</b> : AB	2419.6 47985	SM9223B
E. coli SiteID: WEM080-0027	Sample Date: Water A	7/20/2021	> 2419.6		e #: AB Water De	2419.6 47985	SM9223B
E. coli SiteID: WEM080-0027  Nater Flow Type Riffle	Water A	7/20/2021	2419.6 Brown	MPN/100mL	Water De	2419.6 47985	☐ Algae?
E. coli SiteID: WEM080-0027 Water Flow Type Riffle Water Flow (cf/sec):	Water A	7/20/2021 ppearance	2419.6 Brown	MPN/100mL	Water De	2419.6 47985 epth	☐ Algae?
E. coli  SiteID: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:	Water A	7/20/2021 ppearance Estimated?	2419.6 Brown	MPN/100mL	Water De	2419.6 47985 epth	☐ Algae?
E. coli  SiteID: WEM080-0027  Nater Flow Type Riffle  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water A	7/20/2021 ppearance Estimated?	Brown Aqu	MPN/100mL  IDEM Sampl  uatic Life?	Water De	2419.6 47985 epth opy Closed %	☐ Algae? 0-20%
E. coli  SiteID: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water A	7/20/2021 ppearance Estimated?	Brown Aqu	IDEM Sample uatic Life?	Water De	2419.6 47985 epth opy Closed %	☐ Algae? 0-20% Method
E. coli  SiteID: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water A	7/20/2021 ppearance Estimated?	Brown  Aqu  Result  82.2	MPN/100mL  IDEM Sample  uatic Life?  %  mg/L	Water De	2419.6 47985 epth opy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water A	7/20/2021 ppearance Estimated?	Brown Aqu  Result  82.2 7.16 7.53	MPN/100mL  IDEM Sample  uatic Life?  %  mg/L	Water De	2419.6 47985 epth opy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water A	7/20/2021 ppearance Estimated?	Brown Aqu  Result  82.2 7.16 7.53	MPN/100mL  IDEM Sampl  uatic Life?  %  mg/L SU umho/cm	Water De	2419.6 47985 epth opy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water A	7/20/2021 ppearance Estimated?	Brown Aqu  Result  82.2 7.16 7.53 273	MPN/100mL  IDEM Sampl  uatic Life?  %  mg/L SU umho/cm °C	Water De	2419.6 47985 epth opy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water A	7/20/2021 ppearance Estimated?	Brown  Result  82.2 7.16 7.53 273 22.1 19.6	MPN/100mL  IDEM Sampl  uatic Life?  %  mg/L SU umho/cm °C	Water De	2419.6 47985 epth opy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli  SiteID: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water A	7/20/2021 ppearance Estimated?	Brown  Result  82.2 7.16 7.53 273 22.1 19.6 4	MPN/100mL  IDEM Sampl  uatic Life?  % mg/L SU umho/cm °C NTU	Water De	2419.6 47985 epth opy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SitelD: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water A	7/20/2021 ppearance Estimated?	Brown  Result  82.2 7.16 7.53 273 22.1 19.6 4 2	MPN/100mL  IDEM Sampl  uatic Life?  % mg/L SU umho/cm °C NTU Lookup	Water De	2419.6 47985 epth opy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SitelD: WEM080-0027  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water A	7/20/2021 ppearance Estimated?	Brown  Aqu  Result  82.2 7.16 7.53 273 22.1 19.6 4 2 18	MPN/100mL  IDEM Sampl  uatic Life?  %  mg/L SU umho/cm °C NTU Lookup Lookup	Water De	2419.6 47985 epth opy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
E. coli  SiteID: WEM080-0027  Nater Flow Type Riffle  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water A	7/20/2021 ppearance Estimated?	Brown  Aqu  Result  82.2 7.16 7.53 273 22.1 19.6 4 2 18	MPN/100mL  IDEM Sample  uatic Life?  %  mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Water De Cano Repo	2419.6 47985 epth opy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation
SiteID: WEM080-0027 Water Flow Type Riffle Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water A	7/20/2021 ppearance Estimated?	Brown  Result  82.2 7.16 7.53 273 22.1 19.6 4 2 18 0  Result	MPN/100mL  IDEM Sample  uatic Life?  %  mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Water De Cano Repo	2419.6 47985 epth opy Closed % orting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 64 of 115

SiteID: WEM080-0027 Sample Date: 7/27/2021 IDEM Sample #: AB48010 ☐ Algae? **Water Appearance** Clear **Water Depth** Water Flow Type Riffle ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 57.7 % ASTM D888-09(C) % Sat DO 4.92 mg/L ASTM D888-09(C) pH (Field) 7.49 SU EPA 150.2 340 umho/cm Specific Conductance (Field) SM2510B Temperature 23.2 °C SM2550B(2) Turbidity (Hach) 9.62 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48010 Result **Method** SM9223B Coliforms (Total) > 2419.6 MPN/100mL 2419.6

1413.6 MPN/100mL

SM9223B

1

	Weather Code Definitions						
S	С		WD	WS	AT		
Sky Co	nditions	V	Vind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

E. coli

Friday, October 08, 2021 Page 65 of 115

WEM080-0025 **USGS Hydrologic Unit:** 051202070704 SiteID: Stream Name: Mutton Creek County: Jennings Description: CR 300 North Latitude: 39 40.68763 Longitude: -85 45 55.47689 Drainage: Site Number: 21T-015 8.3 SiteID: WEM080-0025 Sample Date: 5/11/2021 IDEM Sample #: AB47003 ☐ Algae? Clear **Water Depth Water Flow Type** Run Water Appearance ☐ Flow Estimated? Aquatic Life? Water Flow (cf/sec): Canopy Closed % Sampler Comments: Lab ID #: Result **Reporting Limit** Method 101.7 % ASTM D888-09(C) % Sat ASTM D888-09(C) DO 11.01 mg/L 7.87 SU EPA 150.2 pH (Field) Specific Conductance (Field) 308 umho/cm SM2510B 11.7 °C Temperature SM2550B(2) 10.2 NTU Turbidity (Hach) EPA 180.1 Air Temp 3 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 0 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: 500-199136-2 **Reporting Limit** Result **Method** Alkalinity (as CaCO3) 110 mg/L 5 SM2320B Chloride 14 mg/L 0.4 EPA 300.0 Hardness (as CaCO3) 130 mg/L 0.91 SM2340B Solids, Suspended Total, (TSS) 4.5 mg/L 5 SM2540D Solids, Total (TS) 270 mg/L 10 SM2540B Solids, Total Dissolved (TDS) 210 mg/L 10 SM2540C Sulfate 14 mg/L 1 EPA 300.0 Calcium (Total) 37 mg/L 0.2 EPA 200.7 Magnesium (Total) 9 mg/L 0.1 EPA 200.7 COD 23 mg/L 10 SM5220C Nitrogen, Ammonia 0.15 mg/L 0.2 SM4500NH3-G Nitrogen, Nitrate+Nitrite 1.2 mg/L SM4500NO3-F 0.1 0.082 mg/L 0.05 SM4500P-E Phosphorus, Total 0.64 mg/L SM4500N(Org)-D TKN 0.4 TOC 5.4 mg/L 1 SM5310C Lab ID #: AB47003 Result **Reporting Limit Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B

Friday, October 08, 2021 Page 66 of 115

E. coli

435.2 MPN/100mL

SM9223B

1

**SitelD:** WEM080-0025 **Sample Date:** 6/8/2021 **IDEM Sample #:** AB47564

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ☑ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	74.2	%		ASTM D888-09(C)
DO	6.56	mg/L		ASTM D888-09(C)
pH (Field)	7.63	SU		EPA 150.2
Specific Conductance (Field)	414	umho/cm		SM2510B
Temperature	21.3	°C		SM2550B(2)
Turbidity (Hach)	5.27	NTU		EPA 180.1
Air Temp	4	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	0	Lookup		Observation
Lab ID #: 500-200713-2	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	140	mg/L	5	SM2320B
Chloride	23	mg/L	1	EPA 300.0
Hardness (as CaCO3)	200	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4.4	mg/L	10	SM2540D
Solids, Total (TS)	270	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	220	mg/L	10	SM2540C
Sulfate	28	mg/L	1	EPA 300.0
Calcium (Total)	58	mg/L	0.2	EPA 200.7
Magnesium (Total)	13	mg/L	0.1	EPA 200.7
COD	16	mg/L	10	SM5220C
Nitrogen, Ammonia	0.18	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.6	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.075	mg/L	0.05	SM4500P-E
TKN	0.6	mg/L	0.4	SM4500N(Org)-D
TOC	4.8	mg/L	1	SM5310C
<b>Lab ID #</b> : AB47564	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	613.1	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 67 of 115

SiteID: WEM080-0025	<b>Sample Date:</b> 7/6/2021	IDEM Sample	#: AB47712	_
Nater Flow Type Run	Water Appearance	Clear \	Nater Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	Method
% Sat		61.1 %		ASTM D888-09(C)
DO		5.12 mg/L		ASTM D888-09(C)
pH (Field)		7.62 SU		EPA 150.2
Specific Conductance (Field)		351 umho/cm		SM2510B
Temperature		24 °C		SM2550B(2)
Turbidity (Hach)		5.28 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-2		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		130 mg/L	5	SM2320B
Chloride		15 mg/L	1	EPA 300.0
Hardness (as CaCO3)		170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		3.4 mg/L	5	SM2540D
Solids, Total (TS)		250 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		230 mg/L	10	SM2540C
Sulfate		22 mg/L	1	EPA 300.0
Calcium (Total)		47 mg/L	0.2	EPA 200.7
Magnesium (Total)		12 mg/L	0.1	EPA 200.7
COD		11 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.95 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		< 0.05 mg/L	0.05	SM4500P-E
TKN		0.26 mg/L	0.2	EPA 351.2
TOC		3 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47712		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		579.4 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 68 of 115

SiteID: WEM080-0025	Sample Date:	7/13/2021		IDEM Sample	<b>e #:</b> AB47971	
Water Flow Type Run	Water	Appearance	Brown		Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flov	v Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			88.9	%		ASTM D888-09(C)
DO			7.78	mg/L		ASTM D888-09(C)
pH (Field)			7.75	SU		EPA 150.2
Specific Conductance (Field)			293	umho/cm		SM2510B
Temperature			22	°C		SM2550B(2)
Turbidity (Hach)			15.9	NTU		EPA 180.1
Air Temp			4	Lookup		Observation
Sky Conditions			4	Lookup		Observation
Wind Direction			18	Lookup		Observation
Wind Strength			0	Lookup		Observation
<b>Lab ID #</b> : AB47971			Result		Reporting Limit	<u>Method</u>
California (Tatal)			> 2419 6	MPN/100mL	2419.6	SM9223B
Coliforms (Total)			Z-110.0			
E. coli	Sample Date:	7/20/2021		MPN/100mL	1	SM9223B
E. coli  SiteID: WEM080-0025	Sample Date: Water	7/20/2021 <b>Appearance</b>		IDEM Sample	1	SM9223B
E. coli  SiteID: WEM080-0025  Water Flow Type Run	Water		980.4 Brown	IDEM Sample	1 <b>e #</b> : AB47996	☐ Algae?
E. coli SitelD: WEM080-0025	Water	Appearance	980.4 Brown	IDEM Sampl	1 e #: AB47996 Water Depth	☐ Algae?
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	980.4 Brown	IDEM Sampl	1 e #: AB47996 Water Depth	☐ Algae?
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	980.4  Brown  Aq	IDEM Sampl	e #: AB47996 Water Depth Canopy Closed %	☐ Algae? 0-20%
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result  89.6	IDEM Sampl	e #: AB47996 Water Depth Canopy Closed %	Algae? 0-20%  Method
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result  89.6	IDEM Sample unatic Life?  % mg/L	e #: AB47996 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	980.4  Brown  Aq  Result  89.6 7.97 7.68	IDEM Sample unatic Life?  % mg/L	e #: AB47996 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat	Water	Appearance	980.4  Brown  Aq  Result  89.6 7.97 7.68 254 21.1	### Minimal Control of	e #: AB47996 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat	Water	Appearance	980.4  Brown  Aq  Result  89.6 7.97 7.68 254 21.1	Muatic Life?  % mg/L SU umho/cm	e #: AB47996 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	980.4  Brown  Aq  Result  89.6 7.97 7.68 254 21.1 13.8	### Minimal Control of	e #: AB47996 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	980.4  Brown  Aq  Result  89.6 7.97 7.68 254 21.1 13.8 4	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB47996 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SitelD: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water	Appearance	Brown  Result  89.6 7.97 7.68 254 21.1 13.8 4 2	"C" NTU Lookup	e #: AB47996 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SitelD: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water	Appearance	Brown  Result  89.6 7.97 7.68 254 21.1 13.8 4 2 18	"We will be sometimes of the second s	e #: AB47996 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
E. coli  SiteID: WEM080-0025  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Brown  Result  89.6 7.97 7.68 254 21.1 13.8 4 2 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB47996 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation
SiteID: WEM080-0025  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Brown  Result  89.6 7.97 7.68 254 21.1 13.8 4 2 18 0  Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB47996  Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 69 of 115

SiteID: WEM080-0025 Sample Date: 7/27/2021 IDEM Sample #: AB48021 ☐ Algae? **Water Appearance** Clear **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 62.7 % ASTM D888-09(C) % Sat DO 5.36 mg/L ASTM D888-09(C) pH (Field) 7.57 SU EPA 150.2 Specific Conductance (Field) 265 umho/cm SM2510B Temperature 23.1 °C SM2550B(2) Turbidity (Hach) 6.75 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48021 Result **Method** 

> 2419.6 MPN/100mL

387.3 MPN/100mL

SM9223B

SM9223B

2419.6

1

	Weather Code Definitions						
S	C		WD	WS	AT		
Sky Co	nditions	1	Vind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

Coliforms (Total)

E. coli

Friday, October 08, 2021 Page 70 of 115

**SiteID:** WEM080-0013 **USGS Hydrologic Unit:** 051202070703 Stream Name: Storm Creek Ditch County: Jackson Description: CR 400 North 38 56 25.99130 Longitude: -85 48 21.34228 Drainage: 18.19 Site Number: 21T-016 SiteID: WEM080-0013 Sample Date: 5/12/2021 IDEM Sample #: AB46998 ☐ Algae? Water Flow Type Water Appearance Murky **Water Depth** ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 68 % ASTM D888-09(C) % Sat DO 6.99 mg/L ASTM D888-09(C) pH (Field) 7.62 SU EPA 150.2 Specific Conductance (Field) 276 umho/cm SM2510B Temperature 14 °C SM2550B(2) Turbidity (Hach) 12.6 NTU EPA 180.1 Air Temp 3 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 0 Lookup Observation Wind Strength 1 Lookup Observation

Willa Strongth	·	1 Lookup		
<b>Lab ID #</b> : 500-199136-15	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	94	mg/L	5	SM2320B
Chloride	12	mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	110	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6.5	mg/L	5	SM2540D
Solids, Total (TS)	220	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	200	mg/L	10	SM2540C
Sulfate	10	mg/L	0.4	EPA 300.0
Calcium (Total)	29	mg/L	0.2	EPA 200.7
Magnesium (Total)	7.9	mg/L	0.1	EPA 200.7
COD	18	mg/L	10	SM5220C
Nitrogen, Ammonia	0.21	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.63	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.17	mg/L	0.05	SM4500P-E
TKN	0.88	mg/L	0.4	SM4500N(Org)-D
TOC	8.4	mg/L	1	SM5310C
Lab ID #: AB46998	<u>Result</u>		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	172.3	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 71 of 115

SiteID: WEM080-0013	<b>Sample Date:</b> 6/9/2021	IDEM Sample	e #: AB47559	
Vater Flow Type Run	Water Appearance	Brown	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
ampler Comments: Water up	o-rain yesterday and today			
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		63.7 %		ASTM D888-09(C)
DO		5.71 mg/L		ASTM D888-09(C)
pH (Field)		7.22 SU		EPA 150.2
Specific Conductance (Field)		246 umho/cm		SM2510B
Temperature		20.8 °C		SM2550B(2)
Turbidity (Hach)		196 NTU		EPA 180.1
Air Temp		4 Lookup		Observation
Sky Conditions		5 Lookup		Observation
Wind Direction		18 Lookup		Observation
Wind Strength		0 Lookup		Observation
Lab ID #: 500-200713-15		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		75 mg/L	5	SM2320B
Chloride		12 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)		110 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		240 mg/L	31	SM2540D
Solids, Total (TS)		510 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		170 mg/L	10	SM2540C
Sulfate		9.8 mg/L	0.4	EPA 300.0
Calcium (Total)		29 mg/L	0.2	EPA 200.7
Magnesium (Total)		8.3 mg/L	0.1	EPA 200.7
COD		54 mg/L	10	SM5220C
Nitrogen, Ammonia		0.51 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		1.9 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.67 mg/L	0.05	SM4500P-E
TKN		1.9 mg/L	0.4	SM4500N(Org)-D
TOC		12 mg/L	4	SM5310C
<b>Lab ID #</b> : AB47559		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 72 of 115

SiteID: WEM080-0013	<b>Sample Date:</b> 7/7/2021	IDEM Samp	le #: AB47707	
Water Flow Type Stagnant	Water Appearance	Murky	Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		15.5 %		ASTM D888-09(C)
DO		1.34 mg/L		ASTM D888-09(C)
pH (Field)		7.2 SU		EPA 150.2
Specific Conductance (Field)		329 umho/cm		SM2510B
Temperature		23.5 °C		SM2550B(2)
Turbidity (Hach)		6.47 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-15		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		140 mg/L	5	SM2320B
Chloride		12 mg/L	1	EPA 300.0
Hardness (as CaCO3)		150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		5.8 mg/L	5	SM2540D
Solids, Total (TS)		240 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		260 mg/L	10	SM2540C
Sulfate		9.3 mg/L	0.2	EPA 300.0
Calcium (Total)		42 mg/L	0.2	EPA 200.7
Magnesium (Total)		11 mg/L	0.1	EPA 200.7
COD		17 mg/L	10	SM5220C
Nitrogen, Ammonia		0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.27 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.15 mg/L	0.05	SM4500P-E
TKN		0.64 mg/L	0.2	EPA 351.2
TOC		6.1 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47707		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		38.4 MPN/100mL	. 1	SM9223B

Friday, October 08, 2021 Page 73 of 115

SiteID: WEM080-0013	Sample Date: 7/	14/2021	IDEM Samp	le #: AB47966	
Vater Flow Type Pool	Water App	<b>earance</b> Murl	xy	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Es	timated?	Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Resu	<u>lt</u>	Reporting Limit	<u>Method</u>
% Sat		3	9.5 %		ASTM D888-09(C)
DO		3	37 mg/L		ASTM D888-09(C)
pH (Field)		7	15 SU		EPA 150.2
Specific Conductance (Field)		2	47 umho/cm		SM2510B
Temperature		2	3.4 °C		SM2550B(2)
Turbidity (Hach)		1:	2.6 NTU		EPA 180.1
Air Temp			4 Lookup		Observation
Sky Conditions			3 Lookup		Observation
Wind Direction			18 Lookup		Observation
Wind Strength			0 Lookup		Observation
<b>Lab ID #</b> : AB47966		Resu	<u>lt</u>	Reporting Limit	Method
Coliforms (Total)		> 2/1	9.6 MPN/100mL	2419.6	SM9223B
		<i>&gt;</i> 241	IVII I 17 1 0 0 1 1 1 L	2-10.0	002202
E. coli SitelD: WEM080-0013	Sample Date: 7/2		5.4 MPN/100mL	. 1	SM9223B
E. coli  SiteID: WEM080-0013	Sample Date: 7/2 Water App	13	IDEM Samp	. 1	
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant	Water App	13	IDEM Samp	1 le#: AB47991	SM9223B
E. coli  SiteID: WEM080-0013  Nater Flow Type Stagnant  Nater Flow (cf/sec):	Water App	21/2021 pearance Murl	IDEM Samp	le #: AB47991 Water Depth	SM9223B
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:	Water App	21/2021 pearance Murl	IDEM Samp  Y Aquatic Life?	le #: AB47991 Water Depth	SM9223B
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water App	21/2021 pearance Murl stimated?   Resu	IDEM Samp  Aquatic Life?	le #: AB47991 Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water App	21/2021 pearance Murl stimated?   Resu	IDEM Samp  Y Aquatic Life?	le #: AB47991 Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water App	21/2021  pearance Murl ptimated?  Resu  1. 1. 1.	IDEM Samp  Y Aquatic Life?  Lt  2.1 %  03 mg/L  69 SU	le #: AB47991 Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water App	21/2021  pearance Murl ptimated?  Resu  1. 1. 1.	IDEM Samp  Aquatic Life?  It  2.1 %  03 mg/L	le #: AB47991 Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat	Water App	21/2021  pearance Murl stimated?  Resu  1  6	IDEM Samp  Y Aquatic Life?  Lt  2.1 %  03 mg/L  69 SU	le #: AB47991 Water Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  campler Comments:  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)	Water App	21/2021  pearance Murl estimated?  Resu  1. 1. 6. 1. 2.	IDEM Samp  Y Aquatic Life?  Lt  2.1 % 03 mg/L 69 SU 69 umho/cm	le #: AB47991 Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  sampler Comments:  **Lab ID #:  **Sat DO PH (Field) Specific Conductance (Field) Temperature	Water App	21/2021  pearance Murl estimated?  Resu  1. 1. 6. 1. 2.	IDEM Samp  Aquatic Life?  Lt  2.1 % 03 mg/L 69 SU 69 umho/cm 3.3 °C	le #: AB47991 Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water App	21/2021  pearance Murl estimated?  Resu  1. 1. 6. 1. 2.	IDEM Samp  Y Aquatic Life?  Lt  2.1 % 03 mg/L 69 SU 69 umho/cm 3.3 °C 14 NTU	le #: AB47991 Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water App	21/2021  pearance Murl ptimated?  Resu  1 1 6 1 2	IDEM Samp  Y Aquatic Life?  Lt  2.1 % 03 mg/L 69 SU 69 umho/cm 3.3 °C 14 NTU 4 Lookup	le #: AB47991 Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water App	21/2021  pearance Murl ptimated?  Resu  1 1 6 1 2	IDEM Samp  Y Aquatic Life?  Lt  2.1 % 03 mg/L 69 SU 69 umho/cm 3.3 °C 14 NTU 4 Lookup 1 Lookup	le #: AB47991 Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
E. coli  SiteID: WEM080-0013  Vater Flow Type Stagnant  Vater Flow (cf/sec):  Sampler Comments:  **Sat** DO** pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water App	21/2021  pearance Murl ptimated?  Resu  1 1 6 1 2	IDEM Samp  IDEM Samp  Aquatic Life?  Lt  2.1 % 03 mg/L 69 SU 69 umho/cm 3.3 °C 14 NTU 4 Lookup 1 Lookup 1 Lookup 18 Lookup 0 Lookup	le #: AB47991 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM080-0013  Nater Flow Type Stagnant  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water App	21/2021  pearance Murl ptimated?  Resu  1  2  Resu  Resu  Resu	IDEM Samp  IDEM Samp  Aquatic Life?  Lt  2.1 % 03 mg/L 69 SU 69 umho/cm 3.3 °C 14 NTU 4 Lookup 1 Lookup 1 Lookup 18 Lookup 0 Lookup	le #: AB47991  Water Depth Canopy Closed %  Reporting Limit	Method  ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 74 of 115

SiteID: WEM080-0013 Sample Date: 7/28/2021 IDEM Sample #: AB48016 ☐ Algae? Water Flow Type Pool **Water Appearance** Clear **Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 7 % ASTM D888-09(C) 0.6 mg/L DO ASTM D888-09(C) pH (Field) 7.08 SU EPA 150.2 330 umho/cm Specific Conductance (Field) SM2510B Temperature 24.1 °C SM2550B(2) Turbidity (Hach) 5.76 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48016 Result **Method** 

> 2419.6 MPN/100mL

17.5 MPN/100mL

SM9223B

SM9223B

2419.6

1

	Weather Code Definitions					
S	C		WD	WS	AT	
Sky Cor	nditions	V	Vind Direction	Wind Strength	Air Temp	
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32	
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45	
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60	
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75	
5 - Mist				4 - Mod./Strong	5 - 76-85	
6 - Fog				5 - Strong	6 - > 86	
7 - Shower				6 - Gale		

Coliforms (Total)

E. coli

Friday, October 08, 2021 Page 75 of 115

 SiteID:
 WEM080-0005
 USGS Hydrologic Unit:
 051202070703

 Stream Name:
 Tributary to Richart Lake
 County:
 Jennings

**Description:** CR 900 West **Latitude:** 38 58 10.31116 **Longitude:** -85 46 38.64888

**Drainage**: 1.6 **Site Number**: 21T-017

**SiteID:** WEM080-0005 **Sample Date:** 5/12/2021 **IDEM Sample #**: AB46997

Water Flow Type Riffle Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	Method
% Sat	86.6	%		ASTM D888-09(C)
DO	9.6	mg/L		ASTM D888-09(C)
pH (Field)	7.76	SU		EPA 150.2
Specific Conductance (Field)	423	umho/cm		SM2510B
Temperature	10.7	°C		SM2550B(2)
Turbidity (Hach)	11.2	NTU		EPA 180.1
Air Temp	3	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : 500-199136-14	<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	120	mg/L	5	SM2320B
Chloride	30	mg/L	1	EPA 300.0
Hardness (as CaCO3)	160	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5.5	mg/L	5	SM2540D
Solids, Total (TS)	360	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330	mg/L	10	SM2540C
Sulfate	41	mg/L	1	EPA 300.0
Calcium (Total)	40	mg/L	0.2	EPA 200.7
Magnesium (Total)	14	mg/L	0.1	EPA 200.7
COD	6.6	mg/L	10	SM5220C
Nitrogen, Ammonia	0.13	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.6	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.089	mg/L	0.05	SM4500P-E
TKN	0.37	mg/L	0.4	SM4500N(Org)-D
TOC	4.6	mg/L	1	SM5310C
<b>Lab ID #</b> : AB46997	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	142.1	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 76 of 115

<b>SiteID:</b> WEM080-0005 <b>Sample Date:</b> 6/9/2021 <b>IDEM Sample #:</b> AB47558						
Water Flow Type Riffle	Water Appearance	Brown	Water Depth	☐ Algae?		
Nater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%		
Sampler Comments: Water h	igh-rain overnight and today					
Lab ID #:		Result	Reporting Limit	<u>Method</u>		
% Sat		81.1 %		ASTM D888-09(C)		
DO		7.21 mg/L		ASTM D888-09(C)		
pH (Field)		7.37 SU		EPA 150.2		
Specific Conductance (Field)		309 umho/cm		SM2510B		
Temperature		21.1 °C		SM2550B(2)		
Turbidity (Hach)		132 NTU		EPA 180.1		
Air Temp		4 Lookup		Observation		
Sky Conditions		5 Lookup		Observation		
Wind Direction		18 Lookup		Observation		
Wind Strength		0 Lookup		Observation		
<b>Lab ID #</b> : 500-200713-14		Result	Reporting Limit	Method		
Alkalinity (as CaCO3)		51 mg/L	5	SM2320B		
Chloride		18 mg/L	1	EPA 300.0		
Hardness (as CaCO3)		84 mg/L	0.91	SM2340B		
Solids, Suspended Total, (TSS)		120 mg/L	18	SM2540D		
Solids, Total (TS)		370 mg/L	10	SM2540B		
Solids, Total Dissolved (TDS)		170 mg/L	10	SM2540C		
Sulfate		13 mg/L	0.4	EPA 300.0		
Calcium (Total)		23 mg/L	0.2	EPA 200.7		
Magnesium (Total)		6.5 mg/L	0.1	EPA 200.7		
COD		44 mg/L	10	SM5220C		
Nitrogen, Ammonia		0.26 mg/L	0.2	SM4500NH3-G		
Nitrogen, Nitrate+Nitrite		1.9 mg/L	0.1	SM4500NO3-F		
Phosphorus, Total		0.4 mg/L	0.05	SM4500P-E		
TKN		1.3 mg/L	0.4	SM4500N(Org)-D		
TOC		17 mg/L	10	SM5310C		
<b>Lab ID #</b> : AB47558		Result	Reporting Limit	<u>Method</u>		
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B		
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B		

Friday, October 08, 2021 Page 77 of 115

SiteID: WEM080-0005	<b>Sample Date:</b> 7/7/2021	IDEM Sampl	<b>e #</b> : AB47706	
Nater Flow Type Pool	Water Appearance	Clear	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	✓ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		53.5 %		ASTM D888-09(C)
DO		4.64 mg/L		ASTM D888-09(C)
pH (Field)		7.39 SU		EPA 150.2
Specific Conductance (Field)		533 umho/cm		SM2510B
Temperature		22.2 °C		SM2550B(2)
Turbidity (Hach)		10.5 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-14		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		160 mg/L	5	SM2320B
Chloride		36 mg/L	4	EPA 300.0
Hardness (as CaCO3)		230 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		9.6 mg/L	5	SM2540D
Solids, Total (TS)		430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		460 mg/L	10	SM2540C
Sulfate		58 mg/L	4	EPA 300.0
Calcium (Total)		60 mg/L	0.2	EPA 200.7
Magnesium (Total)		19 mg/L	0.1	EPA 200.7
COD		16 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.41 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.11 mg/L	0.05	SM4500P-E
TKN		0.37 mg/L	0.2	EPA 351.2
тос		4.6 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47706		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		613.1 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 78 of 115

SiteID: WEM080-0005	<b>Sample Date:</b> 7/14/2021	II.	DEM Sample	e #: AB47965	
Vater Flow Type Riffle	Water Appearance	Clear		Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	<b>✓</b> Aqu	atic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		81.8 %	%		ASTM D888-09(C)
DO		7.2 n	mg/L		ASTM D888-09(C)
pH (Field)		7.5 S	SU		EPA 150.2
Specific Conductance (Field)		392 u	ımho/cm		SM2510B
Temperature		21.6 °	C		SM2550B(2)
Turbidity (Hach)		14.5 N	NTU		EPA 180.1
Air Temp		4 L	_ookup		Observation
Sky Conditions		4 L	_ookup		Observation
Wind Direction		18 L	_ookup		Observation
Wind Strength		0 L	_ookup		Observation
<b>Lab ID #</b> : AB47965		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6 N	MPN/100mL	2419.6	SM9223B
					0110000
E. coli SiteID: WEM080-0005	Sample Date: 7/21/2021		MPN/100mL  DEM Sample	1 e #: AB47990	SM9223B
SiteID: WEM080-0005	Sample Date: 7/21/2021 Water Appearance		DEM Sampl		SM9223B
SiteID: WEM080-0005  Water Flow Type Riffle	-	II Clear	DEM Sampl	e#: AB47990	☐ Algae?
SiteID: WEM080-0005	Water Appearance	II Clear	DEM Sample	e #: AB47990 Water Depth	☐ Algae?
SiteID: WEM080-0005  Water Flow Type Riffle  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	II Clear	DEM Sample	e #: AB47990 Water Depth	☐ Algae?
SiteID: WEM080-0005  Water Flow Type Riffle  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	Clear  Aqui	DEM Sample atic Life?	e #: AB47990 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WEM080-0005  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  Aqua	DEM Sample atic Life?	e #: AB47990 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WEM080-0005  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  Aqua  Result  81.1 9 7.16 n 7.37 S	DEM Sample atic Life?	e #: AB47990 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM080-0005  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Clear  Aqua  Result  81.1 9 7.16 n 7.37 S 412 u	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB47990 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM080-0005  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Appearance	Clear  Aqua  Result  81.1 9 7.16 n 7.37 S	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB47990 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM080-0005  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Clear  Aqua  Result  81.1 9 7.16 n 7.37 S 412 u	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB47990 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM080-0005  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result  81.1 9 7.16 n 7.37 S 412 u 21.5 9 6.01 N	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB47990 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WEM080-0005  Nater Flow Type Riffle  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Result  81.1 % 7.16 n 7.37 S 412 u 21.5 % 6.01 N 4 L	DEM Sample atic Life?  % ng/L SU umho/cm	e #: AB47990 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WEM080-0005  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Result  81.1 9 7.16 n 7.37 S 412 u 21.5 ° 6.01 N 4 L 1 L	DEM Sample atic Life?  6 ng/L SU umho/cm C NTU Lookup	e #: AB47990 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WEM080-0005  Vater Flow Type Riffle  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance	Result  81.1 % 7.16 n 7.37 \$ 412 u 21.5 % 6.01 N 4 L 1 L	atic Life?  atic Life?  ang/L SU umho/cm C NTU Lookup Lookup	e #: AB47990 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WEM080-0005  Nater Flow Type Riffle  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result  81.1 % 7.16 n 7.37 \$ 412 u 21.5 % 6.01 N 4 L 1 L	atic Life?  atic Life?  atic Life?  atic Life?	e #: AB47990 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation
SiteID: WEM080-0005 Water Flow Type Riffle Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Appearance	Result  81.1 9 7.16 n 7.37 S 412 u 21.5 ° 6.01 N 4 L 1 L 18 L 0 L  Result	atic Life?  atic Life?  atic Life?  atic Life?	e #: AB47990  Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 79 of 115

SiteID: WEM080-0005 Sample Date: 7/28/2021 IDEM Sample #: AB48015

Water Flow Type Pool Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: very low flow

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	59.4	%		ASTM D888-09(C)
DO	5.19	mg/L		ASTM D888-09(C)
pH (Field)	7.35	SU		EPA 150.2
Specific Conductance (Field)	501	umho/cm		SM2510B
Temperature	22	°C		SM2550B(2)
Turbidity (Hach)	4.4	NTU		EPA 180.1
Air Temp	4	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	18	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #:</b> AB48015	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	816.4	MPN/100mL	1	SM9223B

	Weather Code Definitions					
S	C		WD	WS	AT	
Sky Cor	nditions	V	Vind Direction	Wind Strength	Air Temp	
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32	
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45	
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60	
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75	
5 - Mist				4 - Mod./Strong	5 - 76-85	
6 - Fog				5 - Strong	6 - > 86	
7 - Shower				6 - Gale		

Friday, October 08, 2021 Page 80 of 115

 SiteID:
 WEM-07-0014
 USGS Hydrologic Unit:
 051202070703

 Stream Name:
 Storm Creek
 County:
 Jennings

**Description:** Base Road **Latitude:** 38 58 59.52422 **Longitude:** -85 47 12.15271

**Drainage:** Site Number: 21T-018

**SiteID**: WEM-07-0014 **Sample Date**: 5/12/2021 **IDEM Sample #**: AB46996

Water Flow Type Run Water Appearance Clear Water Depth 

Algae?

Water Flow (cf/sec): 

Flow Estimated? 

Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	Method
% Sat	86.5	%		ASTM D888-09(C)
DO	9.53	mg/L		ASTM D888-09(C)
pH (Field)	7.94	SU		EPA 150.2
Specific Conductance (Field)	345	umho/cm		SM2510B
Temperature	10.9	°C		SM2550B(2)
Turbidity (Hach)	9.55	NTU		EPA 180.1
Air Temp	3	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : 500-199136-13	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	130	mg/L	5	SM2320B
Chloride	14	mg/L	1	EPA 300.0
Hardness (as CaCO3)	150	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6	mg/L	5	SM2540D
Solids, Total (TS)	270	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270	mg/L	10	SM2540C
Sulfate	19	mg/L	1	EPA 300.0
Calcium (Total)	41	mg/L	0.2	EPA 200.7
Magnesium (Total)	11	mg/L	0.1	EPA 200.7
COD	6.1	mg/L	10	SM5220C
Nitrogen, Ammonia	0.15	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.3	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.08	mg/L	0.05	SM4500P-E
TKN	0.64	mg/L	0.4	SM4500N(Org)-D
TOC	4.7	mg/L	1	SM5310C
<b>Lab ID #</b> : AB46996	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	201.4	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 81 of 115

SiteID: WEM-07-0014	<b>Sample Date:</b> 6/9/2021	IDEM Samp	le #: AB47557		
Vater Flow Type Riffle	Water Appearance	Brown	Water Depth	☐ Algae?	
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%	
Sampler Comments: Water high. Rain overnight					
Lab ID #:		Result	Reporting Limit	<u>Method</u>	
% Sat		80.7 %		ASTM D888-09(C)	
DO		7.27 mg/L		ASTM D888-09(C)	
pH (Field)		7.34 SU		EPA 150.2	
Specific Conductance (Field)		272 umho/cm		SM2510B	
Temperature		20.5 °C		SM2550B(2)	
Turbidity (Hach)		195 NTU		EPA 180.1	
Air Temp		4 Lookup		Observation	
Sky Conditions		5 Lookup		Observation	
Wind Direction		18 Lookup		Observation	
Wind Strength		0 Lookup		Observation	
<b>Lab ID #</b> : 500-200713-13		Result	Reporting Limit	Method	
Alkalinity (as CaCO3)		75 mg/L	5	SM2320B	
Chloride		19 mg/L	1	EPA 300.0	
Hardness (as CaCO3)		120 mg/L	0.91	SM2340B	
Solids, Suspended Total, (TSS)		210 mg/L	36	SM2540D	
Solids, Total (TS)		450 mg/L	10	SM2540B	
Solids, Total Dissolved (TDS)		190 mg/L	10	SM2540C	
Sulfate		19 mg/L	1	EPA 300.0	
Calcium (Total)		34 mg/L	0.2	EPA 200.7	
Magnesium (Total)		9 mg/L	0.1	EPA 200.7	
COD		52 mg/L	10	SM5220C	
Nitrogen, Ammonia		0.28 mg/L	0.2	SM4500NH3-G	
Nitrogen, Nitrate+Nitrite		2.6 mg/L	1	SM4500NO3-F	
Phosphorus, Total		0.7 mg/L	0.05	SM4500P-E	
TKN		1.8 mg/L	0.4	SM4500N(Org)-D	
TOC		14 mg/L	10	SM5310C	
<b>Lab ID #</b> : AB47557		Result	Reporting Limit	Method	
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B	
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B	

Friday, October 08, 2021 Page 82 of 115

SiteID: WEM-07-0014	<b>Sample Date:</b> 7/7/2021	IDEM Sampl	<b>e #</b> : AB47705	
Vater Flow Type Glide	Water Appearance	Clear	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		66.5 %		ASTM D888-09(C)
DO		5.76 mg/L		ASTM D888-09(C)
pH (Field)		7.51 SU		EPA 150.2
Specific Conductance (Field)		429 umho/cm		SM2510B
Temperature		22.4 °C		SM2550B(2)
Turbidity (Hach)		3.66 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-13		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		180 mg/L	5	SM2320B
Chloride		17 mg/L	1	EPA 300.0
Hardness (as CaCO3)		200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		2.2 mg/L	5	SM2540D
Solids, Total (TS)		270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		290 mg/L	10	SM2540C
Sulfate		18 mg/L	0.4	EPA 300.0
Calcium (Total)		57 mg/L	0.2	EPA 200.7
Magnesium (Total)		15 mg/L	0.1	EPA 200.7
COD		13 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.65 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.07 mg/L	0.05	SM4500P-E
TKN		0.27 mg/L	0.2	EPA 351.2
TOC		3.3 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47705		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		325.5 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 83 of 115

SiteID: WEM-07-0014	<b>Sample Date:</b> 7/14/202		IDEM Sample	e #: AB47964	
Water Flow Type Riffle	Water Appearance	e Clear		Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimate	d? □ Ad	quatic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		82.2	%		ASTM D888-09(C)
DO		7.26	mg/L		ASTM D888-09(C)
pH (Field)		7.6	SU		EPA 150.2
Specific Conductance (Field)		354	umho/cm		SM2510B
Temperature		21.5	°C		SM2550B(2)
Turbidity (Hach)		10.9	NTU		EPA 180.1
Air Temp		4	Lookup		Observation
Sky Conditions		4	Lookup		Observation
Wind Direction		18	Lookup		Observation
Wind Strength		0	Lookup		Observation
<b>Lab ID #</b> : AB47964		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli SiteID: WEM-07-0014	Sample Date: 7/21/202		MPN/100mL  IDEM Sample	1 e #: AB47989	SM9223B
SiteID: WEM-07-0014	Sample Date: 7/21/202		IDEM Sample		SM9223B
SiteID: WEM-07-0014 Water Flow Type Run	-	<b>e</b> Clear	IDEM Sample	e#: AB47989	☐ Algae?
SiteID: WEM-07-0014  Water Flow Type Run  Water Flow (cf/sec):	Water Appearance	<b>e</b> Clear	IDEM Sample	e #: AB47989 Water Depth	☐ Algae?
SiteID: WEM-07-0014  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	<b>e</b> Clear	IDEM Sample	e #: AB47989 Water Depth	☐ Algae?
SiteID: WEM-07-0014  Nater Flow Type Run  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	e Clear d? Ac  Result	IDEM Sample quatic Life?	e #: AB47989 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WEM-07-0014  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	e Clear d? Ac  Result	IDEM Sampl	e #: AB47989 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WEM-07-0014  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	e Clear d?	IDEM Sample quatic Life?  % mg/L SU	e #: AB47989 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM-07-0014  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	e Clear d?	IDEM Sample quatic Life?  % mg/L	e #: AB47989 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WEM-07-0014  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Appearance	e Clear d?	IDEM Sample quatic Life?  % mg/L SU umho/cm	e #: AB47989 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM-07-0014  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result  78.4 6.95 7.34 350 21.2	IDEM Sample quatic Life?  % mg/L SU umho/cm	e #: AB47989 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM-07-0014  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result  78.4 6.95 7.34 350 21.2	ndem Sample quatic Life?  % mg/L SU umho/cm °C	e #: AB47989 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WEM-07-0014  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Result 78.4 6.95 7.34 350 21.2 7.44	We mg/L SU umho/cm °C NTU	e #: AB47989 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WEM-07-0014  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Result 78.4 6.95 7.34 350 21.2 7.44 4	IDEM Sample quatic Life?  % mg/L SU umho/cm °C NTU Lookup	e #: AB47989 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation
SiteID: WEM-07-0014  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance	Result 78.4 6.95 7.34 350 21.2 7.44 4 1	### Cookup	e #: AB47989 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WEM-07-0014  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 78.4 6.95 7.34 350 21.2 7.44 4 1	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB47989 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation
SiteID: WEM-07-0014 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Appearance	Result  Result  78.4 6.95 7.34 350 21.2 7.44 4 1 18 0  Result	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB47989  Water Depth Canopy Closed %  Reporting Limit	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 84 of 115

 SiteID:
 WEM-07-0014
 Sample Date:
 7/28/2021
 IDEM Sample #:
 AB48014

 Water Flow Type
 Run
 Water Appearance
 Clear
 Water Depth
 Algae?

 Water Flow (cf/sec):
 □ Flow Estimated?
 ✔ Aquatic Life?
 Canopy Closed %
 0-20%

 Sampler Comments:

ab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	67.9	%		ASTM D888-09(C)
DO	5.91	mg/L		ASTM D888-09(C)
pH (Field)	7.37	SU		EPA 150.2
Specific Conductance (Field)	394	umho/cm		SM2510B
Temperature	22.2	°C		SM2550B(2)
Turbidity (Hach)	4.56	NTU		EPA 180.1
Air Temp	4	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	18	Lookup		Observation
Wind Strength	0	Lookup		Observation
Lab ID #: AB48014	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	435.2	MPN/100mL	1	SM9223B

Weather Code Definitions								
S	SC WD		WS	AT				
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp			
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

Friday, October 08, 2021 Page 85 of 115

SiteID:WEM-07-0017USGS Hydrologic Unit:051202070702Stream Name:Sixmile CreekCounty:Jennings

**Description:** CR 500 South **Latitude:** 38 54 40.15219 **Longitude:** -85 45 44.37870

**Drainage:** Site Number: 21T-019

**SiteID:** WEM-07-0017 **Sample Date:** 5/11/2021 **IDEM Sample #:** AB47014

Water Flow Type Riffle Water Appearance Brown Water Depth Algae?

Water Flow (cf/sec): 

Flow Estimated? 

Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: Strong bank erosion

Lab ID #:	Result		Reporting Limit	Method
% Sat	106.8	%		ASTM D888-09(C)
DO	10.83	mg/L		ASTM D888-09(C)
pH (Field)	7.95	SU		EPA 150.2
Specific Conductance (Field)	329	umho/cm		SM2510B
Temperature	14.7	°C		SM2550B(2)
Turbidity (Hach)	25.8	NTU		EPA 180.1
Air Temp	3	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	2	Lookup		Observation
<b>Lab ID #</b> : 500-199136-9	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	94	mg/L	5	SM2320B
Chloride	27	mg/L	1	EPA 300.0
Hardness (as CaCO3)	120	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	28	mg/L	5	SM2540D
Solids, Total (TS)	290	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240	mg/L	10	SM2540C
Sulfate	27	mg/L	1	EPA 300.0
Calcium (Total)	35	mg/L	0.2	EPA 200.7
Magnesium (Total)	8.4	mg/L	0.1	EPA 200.7
COD	20	mg/L	10	SM5220C
Nitrogen, Ammonia	0.14	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.53	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.21	mg/L	0.05	SM4500P-E
TKN	0.91	mg/L	0.4	SM4500N(Org)-D
TOC	6.3	mg/L	1	SM5310C
<b>Lab ID #:</b> AB47014	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	201.4	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 86 of 115

SiteID: WEM-07-0017	<b>Sample Date:</b> 6/8/2021	IDEM Sample	#: AB47575	
Water Flow Type Riffle	Water Appearance	Clear \	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		82.1 %		ASTM D888-09(C)
DO		7.03 mg/L		ASTM D888-09(C)
pH (Field)		7.7 SU		EPA 150.2
Specific Conductance (Field)		430 umho/cm		SM2510B
Temperature		23 °C		SM2550B(2)
Turbidity (Hach)		12.7 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		7 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength		1 Lookup		Observation
<b>Lab ID #</b> : 500-200713-9		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		120 mg/L	5	SM2320B
Chloride		31 mg/L	1	EPA 300.0
Hardness (as CaCO3)		190 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		12 mg/L	10	SM2540D
Solids, Total (TS)		340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		250 mg/L	10	SM2540C
Sulfate		49 mg/L	1	EPA 300.0
Calcium (Total)		52 mg/L	0.2	EPA 200.7
Magnesium (Total)		14 mg/L	0.1	EPA 200.7
COD		17 mg/L	10	SM5220C
Nitrogen, Ammonia		0.17 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		1.5 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.16 mg/L	0.05	SM4500P-E
TKN		0.61 mg/L	0.4	SM4500N(Org)-D
тос		5.3 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47575		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		260.3 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 87 of 115

**SitelD:** WEM-07-0017 **Sample Date:** 7/6/2021 **IDEM Sample #:** AB47723

Water Flow Type Riffle Water Appearance Clear Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ☑ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	113.4	%		ASTM D888-09(C)
DO	8.8	mg/L		ASTM D888-09(C)
pH (Field)	8.05	SU		EPA 150.2
Specific Conductance (Field)	377	umho/cm		SM2510B
Temperature	28.4	°C		SM2550B(2)
Turbidity (Hach)	14.9	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	0	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #</b> : 500-202110-9	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	110	mg/L	5	SM2320B
Chloride	24	mg/L	1	EPA 300.0
Hardness (as CaCO3)	160	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	12	mg/L	5	SM2540D
Solids, Total (TS)	290	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	250	mg/L	10	SM2540C
Sulfate	42	mg/L	1	EPA 300.0
Calcium (Total)	45	mg/L	0.2	EPA 200.7
Magnesium (Total)	11	mg/L	0.1	EPA 200.7
COD	21	mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2	mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.18	mg/L	0.05	SM4500P-E
TKN	0.79	mg/L	0.2	EPA 351.2
тос	5.2	mg/L	1	SM5310C
<b>Lab ID #</b> : AB47723	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	231	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 88 of 115

SiteID: WEM-07-0017	Sample Date:	7/13/2021		IDEM Sampl	<b>e #:</b> AB47982	
Water Flow Type Run	Water	Appearance	Brown		Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow	/ Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			90.4	%		ASTM D888-09(C)
DO			7.68	mg/L		ASTM D888-09(C)
pH (Field)			7.54	SU		EPA 150.2
Specific Conductance (Field)			255	umho/cm		SM2510B
Temperature			23.5	°C		SM2550B(2)
Turbidity (Hach)			39.6	NTU		EPA 180.1
Air Temp			5	Lookup		Observation
Sky Conditions				Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
<b>Lab ID #</b> : AB47982			Result		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli SiteID: WEM-07-0017	Sample Date:	7/20/2021	1046.2	MPN/100mL  IDEM Sample	1 e #: AB48007	SM9223B
SiteID: WEM-07-0017	-	7/20/2021 <b>Appearance</b>	1046.2 Brown			SM9223B
SiteID: WEM-07-0017 Nater Flow Type Run	Water		Brown		e#: AB48007	☐ Algae?
SiteID: WEM-07-0017  Water Flow Type Run  Water Flow (cf/sec):	Water	Appearance	Brown	IDEM Sampl	e #: AB48007 Water Depth	☐ Algae?
SiteID: WEM-07-0017  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water	Appearance	Brown	IDEM Sampl	e #: AB48007 Water Depth	☐ Algae?
SiteID: WEM-07-0017  Nater Flow Type Run  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sampluatic Life?	e #: AB48007 Water Depth Canopy Closed %	☐ <b>Algae?</b> 0-20%
SiteID: WEM-07-0017  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sampluatic Life?	e #: AB48007 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WEM-07-0017  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Brown  Aq  Result	IDEM Sampluatic Life?  % mg/L	e #: AB48007 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WEM-07-0017  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	Brown  Aq  Result  95.8 8.15 7.55	IDEM Sampluatic Life?  % mg/L	e #: AB48007 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WEM-07-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:  % Sat DO pH (Field)	Water	Appearance	Brown  Aq  Result  95.8 8.15 7.55	Uatic Life?  % mg/L SU umho/cm	e #: AB48007 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM-07-0017  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Brown  Aq  Result  95.8 8.15 7.55 291	"We mg/L SU umho/cm °C	e #: AB48007 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM-07-0017  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Brown  Result  95.8 8.15 7.55 291 23.4 34.4	"We mg/L SU umho/cm °C	e #: AB48007 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WEM-07-0017  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Brown  Result  95.8 8.15 7.55 291 23.4 34.4 5	Wmg/LSU umho/cm°CNTU	e #: AB48007 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WEM-07-0017  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water	Appearance	Brown  Result  95.8 8.15 7.55 291 23.4 34.4 5	"Watic Life?"  "Mag/L SU umho/cm "C NTU Lookup	e #: AB48007 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WEM-07-0017  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Brown  Result  95.8 8.15 7.55 291 23.4 34.4 5 2 18	"Watic Life?"  "Mag/L SU umho/cm "C NTU Lookup Lookup	e #: AB48007 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation
SiteID: WEM-07-0017  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Brown  Result  95.8 8.15 7.55 291 23.4 34.4 5 2 18	"C" NTU Lookup Lookup Lookup	e #: AB48007 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM-07-0017 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Brown  Result  95.8 8.15 7.55 291 23.4 34.4 5 2 18 1  Result	"C" NTU Lookup Lookup Lookup	e #: AB48007  Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 89 of 115

SiteID: WEM-07-0017 Sample Date: 7/27/2021 IDEM Sample #: AB48032 ☐ Algae? **Water Appearance** Clear **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 84.8 % ASTM D888-09(C) % Sat DO 6.82 mg/L ASTM D888-09(C) 7.67 SU pH (Field) EPA 150.2 349 umho/cm Specific Conductance (Field) SM2510B Temperature 26.4 °C SM2550B(2) Turbidity (Hach) 14.3 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 1 Lookup **Reporting Limit** Lab ID #: AB48032 Result **Method** SM9223B Coliforms (Total) > 2419.6 MPN/100mL 2419.6

248.1 MPN/100mL

SM9223B

1

Weather Code Definitions								
S	SC WD			WS	AT			
Sky Co	nditions	Wind Direction		Wind Strength	Air Temp			
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

E. coli

Friday, October 08, 2021 Page 90 of 115

WEM-07-0018 **USGS Hydrologic Unit:** 051202070702 SiteID: Stream Name: Sixmile Creek County: Jennings Description: CR 200 South Latitude: 38 57 15.78425 Longitude: -85 43 55.69768 Drainage: Site Number: 21T-020 SiteID: WEM-07-0018 Sample Date: 5/11/2021 IDEM Sample #: AB47012 ☐ Algae? Clear **Water Depth** Water Flow Type Riffle Water Appearance ☐ Flow Estimated? Aquatic Life? Water Flow (cf/sec): Canopy Closed % Sampler Comments: Lab ID #: Result **Reporting Limit** Method 105.6 % ASTM D888-09(C) % Sat 10.81 mg/L ASTM D888-09(C) DO 8.07 SU EPA 150.2 pH (Field) Specific Conductance (Field) 356 umho/cm SM2510B 14.2 °C Temperature SM2550B(2) 16.6 NTU Turbidity (Hach) EPA 180.1 3 Lookup Air Temp Observation Sky Conditions 2 Lookup Observation Wind Direction 0 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: 500-199136-7 **Reporting Limit** Result **Method** Alkalinity (as CaCO3) 98 mg/L 5 SM2320B Chloride 27 mg/L 1 EPA 300.0 Hardness (as CaCO3) 140 mg/L 0.91 SM2340B Solids, Suspended Total, (TSS) 13 mg/L SM2540D 5 Solids, Total (TS) 330 mg/L 10 SM2540B Solids, Total Dissolved (TDS) 270 mg/L 10 SM2540C Sulfate 35 mg/L 1 EPA 300.0 Calcium (Total) 39 mg/L 0.2 EPA 200.7 Magnesium (Total) 9.5 mg/L 0.1 EPA 200.7 COD 26 mg/L 10 SM5220C Nitrogen, Ammonia 0.17 mg/L 0.2 SM4500NH3-G Nitrogen, Nitrate+Nitrite 0.45 mg/L 0.1 SM4500NO3-F 0.17 mg/L 0.05 SM4500P-E Phosphorus, Total 0.9 mg/L SM4500N(Org)-D TKN 0.4 TOC 6.4 mg/L 1 SM5310C Lab ID #: AB47012 Result **Reporting Limit Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B

Friday, October 08, 2021 Page 91 of 115

E. coli

410.6 MPN/100mL

SM9223B

1

<b>SiteID:</b> WEM-07-0018	<b>Sample Date:</b> 6/8/2021	IDEM Samp	le #: AB47573	
Water Flow Type Run	Water Appearance	Murky	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	Method
% Sat		83.2 %		ASTM D888-09(C)
DO		7.21 mg/L		ASTM D888-09(C)
pH (Field)		7.77 SU		EPA 150.2
Specific Conductance (Field)		420 umho/cm		SM2510B
Temperature		22.5 °C		SM2550B(2)
Turbidity (Hach)		11.4 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength		1 Lookup		Observation
<b>Lab ID #</b> : 500-200713-7		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		120 mg/L	5	SM2320B
Chloride		33 mg/L	1	EPA 300.0
Hardness (as CaCO3)		170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		8.4 mg/L	10	SM2540D
Solids, Total (TS)		290 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		220 mg/L	10	SM2540C
Sulfate		36 mg/L	1	EPA 300.0
Calcium (Total)		48 mg/L	0.2	EPA 200.7
Magnesium (Total)		12 mg/L	0.1	EPA 200.7
COD		21 mg/L	10	SM5220C
Nitrogen, Ammonia		0.23 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		1.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.29 mg/L	0.05	SM4500P-E
TKN		0.65 mg/L	0.4	SM4500N(Org)-D
TOC		6.1 mg/L	1	SM5310C
<b>Lab ID #:</b> AB47573		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		365.4 MPN/100mL	. 1	SM9223B

Friday, October 08, 2021 Page 92 of 115

<b>SiteID:</b> WEM-07-0018	<b>Sample Date:</b> 7/6/2021	IDEM Sampl	<b>e #</b> : AB47721	
Water Flow Type Riffle	Water Appearance	Clear	Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		91 %		ASTM D888-09(C)
DO		7.51 mg/L		ASTM D888-09(C)
pH (Field)		7.94 SU		EPA 150.2
Specific Conductance (Field)		455 umho/cm		SM2510B
Temperature		25 °C		SM2550B(2)
Turbidity (Hach)		10.4 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-7		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		120 mg/L	5	SM2320B
Chloride		28 mg/L	1	EPA 300.0
Hardness (as CaCO3)		190 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		8 mg/L	5	SM2540D
Solids, Total (TS)		360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		320 mg/L	10	SM2540C
Sulfate		76 mg/L	2	EPA 300.0
Calcium (Total)		53 mg/L	0.2	EPA 200.7
Magnesium (Total)		14 mg/L	0.1	EPA 200.7
COD		23 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		1.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.26 mg/L	0.05	SM4500P-E
TKN		0.68 mg/L	0.2	EPA 351.2
TOC		5.2 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47721		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		648.8 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 93 of 115

SiteID: WEM-07-0018	Sample Date: 7/	13/2021	IDEM Samp	le #: AB47980	
Vater Flow Type Eddy	Water App	<b>Dearance</b> Brow	'n	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Es	stimated?	Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Resu	<u>lt</u>	Reporting Limit	<u>Method</u>
% Sat		95	5.3 %		ASTM D888-09(C)
DO		8.	09 mg/L		ASTM D888-09(C)
pH (Field)		7.	88 SU		EPA 150.2
Specific Conductance (Field)		2	68 umho/cm		SM2510B
Temperature		23	3.5 °C		SM2550B(2)
Turbidity (Hach)		3	.7 NTU		EPA 180.1
Air Temp			4 Lookup		Observation
Sky Conditions			3 Lookup		Observation
Wind Direction			18 Lookup		Observation
Wind Strength			1 Lookup		Observation
<b>Lab ID #</b> : AB47980		Resu	l <u>t</u>	Reporting Limit	Method
California (Tatal)		> 2/11	9.6 MPN/100mL	2419.6	SM9223B
Coliforms (Total)		/ ZTI		=	
E. coli  SiteID: WEM-07-0018	Sample Date: 7/		IDEM Samp	. 1	SM9223B
E. coli  SiteID: WEM-07-0018	Sample Date: 7/	61:	3.1 MPN/100mL	. 1	
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run	Water App	61:	3.1 MPN/100mL	1 le#: AB48005	SM9223B
E. coli  SiteID: WEM-07-0018  Nater Flow Type Run  Nater Flow (cf/sec):	Water App	61: /20/2021 pearance Brow	IDEM Samp	le #: AB48005 Water Depth	SM9223B
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water App	61: /20/2021 pearance Brow	IDEM Samp	le #: AB48005 Water Depth	SM9223B
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water App	61: 20/2021 pearance Brow stimated?  Resu 9:	IDEM Samp  Aquatic Life?	le #: AB48005  Water Depth  Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water App	61:  220/2021  Dearance Brow  Stimated?  Resu  9: 7:	IDEM Samp  Aquatic Life?  Lt  1.6 %  93 mg/L	le #: AB48005  Water Depth  Canopy Closed %	SM9223B  Algae? 0-20%  Method
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water App	61:  220/2021  Dearance Brow  Stimated?  Resu  9: 7.	IDEM Samp  Aquatic Life?  L6 % 93 mg/L 71 SU	le #: AB48005  Water Depth  Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water App	61:  220/2021  Dearance Brow  Stimated?  Resu  9: 7.	IDEM Samp  Aquatic Life?  Lt  1.6 %  93 mg/L	le #: AB48005  Water Depth  Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  campler Comments:  Lab ID #:  % Sat DO pH (Field)	Water App	613  220/2021  Dearance Brow  Stimated?  Resu  97 7. 7. 3	IDEM Samp  Aquatic Life?  L6 % 93 mg/L 71 SU	le #: AB48005  Water Depth  Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  ampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water App	613  220/2021  Dearance Brow  Stimated?  Resu  9: 7. 3. 22	IDEM Samp  Aquatic Life?  Lt  1.6 % 93 mg/L 71 SU 20 umho/cm	le #: AB48005  Water Depth  Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec): sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water App	613  220/2021  Dearance Brow  Stimated?  Resu  9: 7. 3. 22	IDEM Samp  IDEM Samp  Aquatic Life?  Lt  I.6 %  I.6	le #: AB48005  Water Depth  Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water App	613  220/2021  Dearance Brow  Stimated?  Resu  9: 7. 3. 22	IDEM Samp  IDEM Samp  Aquatic Life?  It  I.6 %  93 mg/L  71 SU  20 umho/cm  2.5 °C  22 NTU	le #: AB48005  Water Depth  Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Bat DO PH (Field)  Specific Conductance (Field)  Temperature Turbidity (Hach)  Air Temp	Water App	61: 220/2021 Dearance Brow Stimated?  Resu  9: 7. 7. 3. 22	IDEM Samp  IDEM Samp  Aquatic Life?  I.6 %  93 mg/L  71 SU  20 umho/cm  2.5 °C  21 NTU  5 Lookup	le #: AB48005  Water Depth  Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Campler Comments:**  **Sat**  DO**  pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions	Water App	61: 220/2021 Dearance Brow Stimated?  Resu  9: 7. 7. 3. 22	IDEM Samp  IDEM Samp  Aquatic Life?  I.6 %  93 mg/L  71 SU  20 umho/cm  2.5 °C  22 NTU  5 Lookup  2 Lookup	le #: AB48005  Water Depth  Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
E. coli  SitelD: WEM-07-0018  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water App	61: 220/2021 Dearance Brow Stimated?  Resu  9: 7. 7. 3. 22	IDEM Samp  IDEM Samp  Aquatic Life?  I.6 %  93 mg/L  71 SU  20 umho/cm  2.5 °C  22 NTU  5 Lookup  2 Lookup  18 Lookup  0 Lookup	le #: AB48005  Water Depth  Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM-07-0018  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water App	Resu Resu Resu Resu Resu Resu	IDEM Samp  IDEM Samp  Aquatic Life?  I.6 %  93 mg/L  71 SU  20 umho/cm  2.5 °C  22 NTU  5 Lookup  2 Lookup  18 Lookup  0 Lookup	le #: AB48005  Water Depth Canopy Closed %  Reporting Limit	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 94 of 115

SiteID: WEM-07-0018 Sample Date: 7/27/2021 IDEM Sample #: AB48030 ☐ Algae? **Water Appearance** Clear **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 82 % ASTM D888-09(C) % Sat DO 6.88 mg/L ASTM D888-09(C) pH (Field) 7.79 SU EPA 150.2 419 umho/cm Specific Conductance (Field) SM2510B Temperature 24.1 °C SM2550B(2) Turbidity (Hach) 11.1 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup **Reporting Limit** Lab ID #: AB48030 Result **Method** SM9223B Coliforms (Total) > 2419.6 MPN/100mL 2419.6

298.7 MPN/100mL

SM9223B

1

Weather Code Definitions								
S	SC WD		WD WS		AT			
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp			
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

E. coli

Friday, October 08, 2021 Page 95 of 115

WEM-07-0019 **USGS Hydrologic Unit:** 051202070702 SiteID: Stream Name: Sixmile Creek County: Jennings Description: CR 175 North Latitude: 39 36.34528 Longitude: -85 42 17.91439 Drainage: Site Number: 21T-021 SiteID: WEM-07-0019 Sample Date: 5/11/2021 IDEM Sample #: AB47008 ☐ Algae? **Water Depth** Water Flow Type Water Appearance ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % Sampler Comments: Lab ID #: Result **Reporting Limit** Method 93.9 % ASTM D888-09(C) % Sat ASTM D888-09(C) DO 9.45 mg/L 7.93 SU EPA 150.2 pH (Field) Specific Conductance (Field) 331 umho/cm SM2510B 15 °C Temperature SM2550B(2) 18.7 NTU Turbidity (Hach) EPA 180.1 3 Lookup Air Temp Observation Sky Conditions 2 Lookup Observation Wind Direction 0 Lookup Observation Wind Strength 2 Lookup Observation Lab ID #: 500-199136-3 **Reporting Limit** Result **Method** Alkalinity (as CaCO3) 92 mg/L 5 SM2320B Chloride 28 mg/L 1 EPA 300.0 Hardness (as CaCO3) 120 mg/L 0.91 SM2340B 15 mg/L Solids, Suspended Total, (TSS) SM2540D 5 Solids, Total (TS) 290 mg/L 10 SM2540B Solids, Total Dissolved (TDS) 250 mg/L 10 SM2540C Sulfate 22 mg/L 1 EPA 300.0 Calcium (Total) 34 mg/L 0.2 EPA 200.7 Magnesium (Total) 7.7 mg/L 0.1 EPA 200.7 COD 10 SM5220C 31 mg/L Nitrogen, Ammonia 0.17 mg/L 0.2 SM4500NH3-G Nitrogen, Nitrate+Nitrite 0.48 mg/L 0.1 SM4500NO3-F 0.25 mg/L 0.05 SM4500P-E Phosphorus, Total 0.67 mg/L SM4500N(Org)-D TKN 0.4 TOC 7.7 mg/L 1 SM5310C Lab ID #: AB47008 Result **Reporting Limit Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B

Friday, October 08, 2021 Page 96 of 115

E. coli

261.3 MPN/100mL

SM9223B

1

**SiteID:** WEM-07-0019 **Sample Date:** 6/8/2021 **IDEM Sample #:** AB47569

Water Flow Type Run Water Appearance Clear Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	69.8	%		ASTM D888-09(C)
DO	6.27	mg/L		ASTM D888-09(C)
pH (Field)	7.61	SU		EPA 150.2
Specific Conductance (Field)	521	umho/cm		SM2510B
Temperature	20.6	°C		SM2550B(2)
Turbidity (Hach)	6.21	NTU		EPA 180.1
Air Temp	4	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	0	Lookup		Observation
Lab ID #: 500-200713-3	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	120	mg/L	5	SM2320B
Chloride	42	mg/L	2	EPA 300.0
Hardness (as CaCO3)	170	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4.4	mg/L	10	SM2540D
Solids, Total (TS)	280	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210	mg/L	10	SM2540C
Sulfate	30	mg/L	2	EPA 300.0
Calcium (Total)	49	mg/L	0.2	EPA 200.7
Magnesium (Total)	11	mg/L	0.1	EPA 200.7
COD	27	mg/L	10	SM5220C
Nitrogen, Ammonia	0.21	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.5	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.47	mg/L	0.05	SM4500P-E
TKN	0.88	mg/L	0.4	SM4500N(Org)-D
тос	7.5	mg/L	1	SM5310C
<b>Lab ID #</b> : AB47569	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	209.8	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 97 of 115

SiteID: WEM-07-0019	<b>Sample Date:</b> 7/6/2021	IDEM Sampl	<b>e</b> #: AB47717	
Vater Flow Type Run	Water Appearance	Clear	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	✓ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		71 %		ASTM D888-09(C)
DO		6.01 mg/L		ASTM D888-09(C)
pH (Field)		7.65 SU		EPA 150.2
Specific Conductance (Field)		289 umho/cm		SM2510B
Temperature		23.8 °C		SM2550B(2)
Turbidity (Hach)		7.56 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-3		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		89 mg/L	5	SM2320B
Chloride		21 mg/L	1	EPA 300.0
Hardness (as CaCO3)		120 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		5.8 mg/L	5	SM2540D
Solids, Total (TS)		210 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		200 mg/L	10	SM2540C
Sulfate		19 mg/L	1	EPA 300.0
Calcium (Total)		34 mg/L	0.2	EPA 200.7
Magnesium (Total)		8 mg/L	0.1	EPA 200.7
COD		17 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.42 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.19 mg/L	0.05	SM4500P-E
TKN		0.84 mg/L	0.2	EPA 351.2
тос		6.3 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47717		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		313 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 98 of 115

SiteID: WEM-07-0019	Sample Date:	7/13/2021		IDEM Sampl	<b>e #:</b> AB47976	
Water Flow Type Run	Water	Appearance	Brown		Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow	v Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			83.5	%		ASTM D888-09(C)
DO			7.05	mg/L		ASTM D888-09(C)
pH (Field)			7.56	SU		EPA 150.2
Specific Conductance (Field)			246	umho/cm		SM2510B
Temperature			23.8	°C		SM2550B(2)
Turbidity (Hach)			21.2	NTU		EPA 180.1
Air Temp			4	Lookup		Observation
Sky Conditions			4	Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
<b>Lab ID #</b> : AB47976			Result		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli SiteID: WEM-07-0019	Sample Date:	7/20/2021	193.5	MPN/100mL  IDEM Sample	1 <b>e #</b> : AB48001	SM9223B
SiteID: WEM-07-0019	-	7/20/2021 <b>Appearance</b>	193.5 Murky			SM9223B
SiteID: WEM-07-0019 Nater Flow Type Run	Water		Murky		e#: AB48001	☐ Algae?
SiteID: WEM-07-0019  Water Flow Type Run  Water Flow (cf/sec):	Water	Appearance	Murky	IDEM Sampl	e #: AB48001 Water Depth	☐ Algae?
SiteID: WEM-07-0019  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water	Appearance	Murky	IDEM Sampl	e #: AB48001 Water Depth	☐ Algae?
SiteID: WEM-07-0019  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Murky Aq Result	IDEM Sample unatic Life?	e #: AB48001 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C)
SiteID: WEM-07-0019  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Murky Aq Result	IDEM Sampl	e #: AB48001 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WEM-07-0019  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Murky Aq Result	IDEM Sample unatic Life?  % mg/L	e #: AB48001 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM-07-0019  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	Murky Aq  Result  76.3 6.52 7.56	IDEM Sample unatic Life?  % mg/L	e #: AB48001 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WEM-07-0019  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water	Appearance	Murky Aq  Result  76.3 6.52 7.56	Muatic Life?  % mg/L SU umho/cm	e #: AB48001 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WEM-07-0019  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Murky  Result  76.3 6.52 7.56 23.1	### Sample   ### Sumple   ### S	e #: AB48001 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WEM-07-0019  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Murky  Result  76.3 6.52 7.56 23.1 23.1 16.8	"We mg/L SU umho/cm °C	e #: AB48001 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WEM-07-0019  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Murky  Result  76.3 6.52 7.56 23.1 23.1 16.8 4	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB48001 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WEM-07-0019  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water	Appearance	Murky  Result  76.3 6.52 7.56 23.1 23.1 16.8 4 2	"Watic Life?"  "Mag/L SU umho/cm "C NTU Lookup	e #: AB48001 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation
SiteID: WEM-07-0019  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Murky  Result  76.3 6.52 7.56 23.1 23.1 16.8 4 2 18	"We will be something the second of the seco	e #: AB48001 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WEM-07-0019  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Murky  Result  76.3 6.52 7.56 23.1 23.1 16.8 4 2 18	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB48001 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM-07-0019 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Murky  Result  76.3 6.52 7.56 23.1 23.1 16.8 4 2 18 0  Result	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB48001  Water Depth Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 99 of 115

SiteID: WEM-07-0019 Sample Date: 7/27/2021 IDEM Sample #: AB48026 ☐ Algae? **Water Appearance** Clear **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 75.2 % ASTM D888-09(C) % Sat DO 6.52 mg/L ASTM D888-09(C) pH (Field) 7.61 SU EPA 150.2 250 umho/cm Specific Conductance (Field) SM2510B Temperature 22.4 °C SM2550B(2) Turbidity (Hach) 7.59 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup Lab ID #: AB48026 **Reporting Limit** Result **Method** SM9223B Coliforms (Total) > 2419.6 MPN/100mL 2419.6

186 MPN/100mL

SM9223B

1

	Weather Code Definitions						
S	SC .		WD	WS	AT		
Sky Co	onditions	1	Wind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

E. coli

Friday, October 08, 2021 Page 100 of 115

WEM-07-0020 **USGS Hydrologic Unit:** 051202070702 SiteID: Stream Name: Sixmile Creek County: Jennings Description: CR 415 North Latitude: 39 44.73366 Longitude: -85 40 35.18964 Drainage: Site Number: 21T-022 SiteID: WEM-07-0020 Sample Date: 5/11/2021 IDEM Sample #: AB47009 ☐ Algae? **Water Depth** Water Flow Type Water Appearance Brown Run ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % Sampler Comments: Lab ID #: Result **Reporting Limit** Method 92 % ASTM D888-09(C) % Sat ASTM D888-09(C) DO 9.95 mg/L 7.58 SU EPA 150.2 pH (Field) Specific Conductance (Field) 449 umho/cm SM2510B 11.8 °C Temperature SM2550B(2) 18.8 NTU Turbidity (Hach) EPA 180.1 3 Lookup Air Temp Observation Sky Conditions 2 Lookup Observation Wind Direction 0 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: 500-199136-4 **Reporting Limit** Result **Method** Alkalinity (as CaCO3) 140 mg/L 5 SM2320B Chloride 33 mg/L 2 EPA 300.0 Hardness (as CaCO3) 160 mg/L 0.91 SM2340B Solids, Suspended Total, (TSS) 6.5 mg/L 5 SM2540D Solids, Total (TS) 380 mg/L 10 SM2540B Solids, Total Dissolved (TDS) 340 mg/L 10 SM2540C Sulfate 31 mg/L 2 EPA 300.0 Calcium (Total) 47 mg/L 0.2 EPA 200.7 Magnesium (Total) 11 mg/L 0.1 EPA 200.7 COD 10 SM5220C 18 mg/L Nitrogen, Ammonia 0.12 mg/L 0.2 SM4500NH3-G Nitrogen, Nitrate+Nitrite 1.3 mg/L 0.1 SM4500NO3-F 0.05 SM4500P-E Phosphorus, Total 0.11 mg/L 0.87 mg/L SM4500N(Org)-D TKN 0.4 TOC 6.4 mg/L 1 SM5310C Lab ID #: AB47009 Result **Reporting Limit Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B

Friday, October 08, 2021 Page 101 of 115

E. coli

547.5 MPN/100mL

SM9223B

1

**SitelD:** WEM-07-0020 **Sample Date:** 6/8/2021 **IDEM Sample #:** AB47570

Water Flow Type Pool Water Appearance Clear Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ☑ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	75.3	%		ASTM D888-09(C)
DO	6.82	mg/L		ASTM D888-09(C)
pH (Field)	7.65	SU		EPA 150.2
Specific Conductance (Field)	619	umho/cm		SM2510B
Temperature	19.8	°C		SM2550B(2)
Turbidity (Hach)	5.66	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : 500-200713-4	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	130	mg/L	5	SM2320B
Chloride	85	mg/L	5	EPA 300.0
Hardness (as CaCO3)	200	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4	mg/L	5	SM2540D
Solids, Total (TS)	390	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360	mg/L	10	SM2540C
Sulfate	42	mg/L	5	EPA 300.0
Calcium (Total)	57	mg/L	0.2	EPA 200.7
Magnesium (Total)	14	mg/L	0.1	EPA 200.7
COD	16	mg/L	10	SM5220C
Nitrogen, Ammonia	0.21	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.4	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.1	mg/L	0.05	SM4500P-E
TKN	0.53	mg/L	0.4	SM4500N(Org)-D
TOC	5.4	mg/L	1	SM5310C
<b>Lab ID #</b> : AB47570	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1553.1	MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 102 of 115

SiteID: WEM-07-0020	<b>Sample Date:</b> 7/6/2021	IDEM Sampl	<b>e #</b> : AB47718	
Vater Flow Type Glide	Water Appearance	Clear	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	✓ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		34.9 %		ASTM D888-09(C)
DO		3.24 mg/L		ASTM D888-09(C)
pH (Field)		7.18 SU		EPA 150.2
Specific Conductance (Field)		590 umho/cm		SM2510B
Temperature		18 °C		SM2550B(2)
Turbidity (Hach)		3.33 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-4		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		170 mg/L	5	SM2320B
Chloride		59 mg/L	4	EPA 300.0
Hardness (as CaCO3)		240 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		2.2 mg/L	5	SM2540D
Solids, Total (TS)		430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		420 mg/L	10	SM2540C
Sulfate		52 mg/L	4	EPA 300.0
Calcium (Total)		68 mg/L	0.2	EPA 200.7
Magnesium (Total)		17 mg/L	0.1	EPA 200.7
COD		10 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		0.89 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.092 mg/L	0.05	SM4500P-E
TKN		0.32 mg/L	0.2	EPA 351.2
TOC		3.4 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47718		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6 MPN/100mL	2419.6	SM9223B

Friday, October 08, 2021 Page 103 of 115

SiteID: WEM-07-0020	Sample Date:	7/13/2021		IDEM Sample	<b>e #</b> : AB47977	
Vater Flow Type Run	Water	Appearance	Brown		Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow	v Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	Method
% Sat			86.3	%		ASTM D888-09(C)
DO			7.59	mg/L		ASTM D888-09(C)
pH (Field)			7.55	SU		EPA 150.2
Specific Conductance (Field)			296	umho/cm		SM2510B
Temperature			21.6	°C		SM2550B(2)
Turbidity (Hach)			32	NTU		EPA 180.1
Air Temp			4	Lookup		Observation
Sky Conditions			4	Lookup		Observation
Wind Direction			18	Lookup		Observation
Wind Strength			1	Lookup		Observation
<b>Lab ID #</b> : AB47977			Result		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
Collionnis (Total)						
E. coli	Sample Date:	7/20/2021		MPN/100mL	1 <b>e #</b> : AB48002	SM9223B
E. coli	-	7/20/2021 <b>Appearance</b>				SM9223B
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run	Water		1986.3 Murky		e#: AB48002	☐ Algae?
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):	Water	Appearance	1986.3 Murky	IDEM Sampl	e #: AB48002 Water Depth	☐ Algae?
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	1986.3 Murky	IDEM Sampl	e #: AB48002 Water Depth	☐ Algae?
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	1986.3  Murky  Aq  Result  69.3	IDEM Sampl quatic Life?	e #: AB48002 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	1986.3  Murky  Aq  Result  69.3	IDEM Sampl	e #: AB48002 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	Murky Aq  Result 69.3 6.42 7.38	IDEM Sampl quatic Life? % mg/L SU	e #: AB48002 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	Murky Aq  Result 69.3 6.42 7.38	IDEM Sampl quatic Life?	e #: AB48002 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):  campler Comments:  Lab ID #:  % Sat DO pH (Field)	Water	Appearance	Murky Aq  Result 69.3 6.42 7.38 461	IDEM Sampl quatic Life? % mg/L SU	e #: AB48002 Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):  ampler Comments:  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)	Water	Appearance	Murky Aq  Result 69.3 6.42 7.38 461 19	JUEM Sample Juatic Life?  % mg/L SU umho/cm	e #: AB48002 Water Depth Canopy Closed %	☐ Algae?  O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec): sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Murky Aq  Result 69.3 6.42 7.38 461 19 9.55	JUEM Sample  Juatic Life?	e #: AB48002 Water Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water	Appearance	Murky Aq  Result 69.3 6.42 7.38 461 19 9.55 4	### Sample  ### Sumple  ### Su	e #: AB48002 Water Depth Canopy Closed %	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM-07-0020  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water	Appearance	Murky Aq  Result  69.3 6.42 7.38 461 19 9.55 4 2	JUEM Sample  Juatic Life?  %  mg/L SU  umho/cm °C  NTU  Lookup	e #: AB48002 Water Depth Canopy Closed %	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Bate DO PH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions	Water	Appearance	Murky Aq  Result  69.3 6.42 7.38 461 19 9.55 4 2 18	"We will be solved by the second by the second by the second be solved by the second b	e #: AB48002 Water Depth Canopy Closed %	☐ Algae?
SiteID: WEM-07-0020  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Murky Aq  Result  69.3 6.42 7.38 461 19 9.55 4 2 18	"Multic Life?"  "Multic Life?"  "Multic Life?  "Multic Life?  "Multic Life?  "C  NTU  Lookup  Lookup  Lookup	e #: AB48002 Water Depth Canopy Closed %	Algae?  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WEM-07-0020  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Murky Aq  Result 69.3 6.42 7.38 461 19 9.55 4 2 18 0  Result	"Multic Life?"  "Multic Life?"  "Multic Life?  "Multic Life?  "Multic Life?  "C  NTU  Lookup  Lookup  Lookup	e #: AB48002  Water Depth  Canopy Closed %  Reporting Limit	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 104 of 115

**SiteID:** WEM-07-0020 **Sample Date:** 7/27/2021 **IDEM Sample #:** AB48027

Water Flow Type Pool Water Appearance Clear Water Depth 
Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ☑ Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: low flow

ab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	28.3 %	%		ASTM D888-09(C)
DO	2.63 r	mg/L		ASTM D888-09(C)
pH (Field)	7.23 \$	SU		EPA 150.2
Specific Conductance (Field)	553 ι	umho/cm		SM2510B
Temperature	19 °	°C		SM2550B(2)
Turbidity (Hach)	2.69 1	NTU		EPA 180.1
Air Temp	4 L	Lookup		Observation
Sky Conditions	1 L	Lookup		Observation
Wind Direction	18 L	Lookup		Observation
Wind Strength	0 Ι	Lookup		Observation
Lab ID #: AB48027	<u>Result</u>		Reporting Limit	Method
Coliforms (Total)	> 2419.6 N	MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 M	MPN/100mL	2419.6	SM9223B

	Weather Code Definitions							
S	C		WD	WS	AT			
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp			
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

Friday, October 08, 2021 Page 105 of 115

WEM070-0036 **USGS Hydrologic Unit:** 051202070701 SiteID: Stream Name: Vernon Fork Muscatatuck River County: Jennings Description: CR 400 West Latitude: 38 57 15.46163 Longitude: -85 41 5.94729 Drainage: 219.11 Site Number: 21T-023 WEM070-0036 Sample Date: 5/11/2021 IDEM Sample #: AB47011 ☐ Algae? **Water Depth** Water Flow Type Run Water Appearance Brown ☐ Flow Estimated? Aquatic Life? Water Flow (cf/sec): Canopy Closed % **Sampler Comments:** Lab ID #: Result **Reporting Limit** Method 90.4 % % Sat ASTM D888-09(C) ASTM D888-09(C) DO 9.55 mg/L 7.79 SU EPA 150.2 pH (Field) Specific Conductance (Field) 248 umho/cm SM2510B 12.8 °C Temperature SM2550B(2) 119 NTU Turbidity (Hach) EPA 180.1 3 Lookup Air Temp Observation Sky Conditions 1 Lookup Observation Wind Direction 0 Lookup Observation Wind Strength 2 Lookup Observation Lab ID #: 500-199136-6 **Reporting Limit** Result **Method** Alkalinity (as CaCO3) 85 mg/L 5 SM2320B Chloride 14 mg/L 0.4 EPA 300.0 Hardness (as CaCO3) 110 mg/L 0.91 SM2340B Solids, Suspended Total, (TSS) 60 mg/L 5 SM2540D Solids, Total (TS) 320 mg/L 10 SM2540B Solids, Total Dissolved (TDS) 210 mg/L 10 SM2540C Sulfate 8.9 mg/L 0.4 EPA 300.0 Calcium (Total) 32 mg/L 0.2 EPA 200.7 Magnesium (Total) 6.8 mg/L 0.1 EPA 200.7 COD 27 mg/L 10 SM5220C Nitrogen, Ammonia 0.23 mg/L 0.2 SM4500NH3-G Nitrogen, Nitrate+Nitrite 1.4 mg/L 0.1 SM4500NO3-F

<b>Lab ID #</b> : AB47011	Result	Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1203.3 MPN/100mL	1	SM9223B

0.49 mg/L 1.1 mg/L

8 mg/L

Phosphorus, Total

TKN

TOC

0.05

0.4

1

SM4500P-E

SM4500N(Org)-D

SM5310C

Friday, October 08, 2021 Page 106 of 115

SiteID: WEM070-0036	<b>Sample Date</b> : 6/8/2021	IDEM Sampl	<b>e #:</b> AB47572	
Water Flow Type Run	Water Appearance	Clear	Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		81.7 %		ASTM D888-09(C)
DO		7.01 mg/L		ASTM D888-09(C)
pH (Field)		7.76 SU		EPA 150.2
Specific Conductance (Field)		375 umho/cm		SM2510B
Temperature		22.8 °C		SM2550B(2)
Turbidity (Hach)		20.2 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength		1 Lookup		Observation
<b>Lab ID #</b> : 500-200713-6		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		130 mg/L	5	SM2320B
Chloride		18 mg/L	1	EPA 300.0
Hardness (as CaCO3)		180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		22 mg/L	10	SM2540D
Solids, Total (TS)		280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		220 mg/L	10	SM2540C
Sulfate		16 mg/L	1	EPA 300.0
Calcium (Total)		54 mg/L	0.2	EPA 200.7
Magnesium (Total)		12 mg/L	0.1	EPA 200.7
COD		18 mg/L	10	SM5220C
Nitrogen, Ammonia		0.19 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		4.3 mg/L	1	SM4500NO3-F
Phosphorus, Total		0.17 mg/L	0.05	SM4500P-E
TKN		0.76 mg/L	0.4	SM4500N(Org)-D
TOC		5.2 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47572		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		166.4 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 107 of 115

SiteID: WEM070-0036	<b>Sample Date</b> : 7/6/2021	IDEM Sample	e#: AB47720	_
Vater Flow Type Run	Water Appearance	Clear	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		86 %		ASTM D888-09(C)
DO		6.85 mg/L		ASTM D888-09(C)
pH (Field)		7.78 SU		EPA 150.2
Specific Conductance (Field)		311 umho/cm		SM2510B
Temperature		26.5 °C		SM2550B(2)
Turbidity (Hach)		20 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #</b> : 500-202110-6		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		120 mg/L	5	SM2320B
Chloride		12 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)		150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		19 mg/L	5	SM2540D
Solids, Total (TS)		240 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		210 mg/L	10	SM2540C
Sulfate		13 mg/L	0.4	EPA 300.0
Calcium (Total)		44 mg/L	0.2	EPA 200.7
Magnesium (Total)		9.2 mg/L	0.1	EPA 200.7
COD		18 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		1.6 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.15 mg/L	0.05	SM4500P-E
TKN		0.48 mg/L	0.2	EPA 351.2
TOC		3.5 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47720		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		104.6 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 108 of 115

SiteID: WEM070-0036	Sample Date:	7/13/2021		IDEM Sampl	<b>e #:</b> AB47979	
Water Flow Type Eddy	Water	Appearance	Brown		Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow	Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			86.1	%		ASTM D888-09(C)
DO			7.46	mg/L		ASTM D888-09(C)
pH (Field)			7.74	SU		EPA 150.2
Specific Conductance (Field)			268	umho/cm		SM2510B
Temperature			22.4	°C		SM2550B(2)
Turbidity (Hach)			72.6	NTU		EPA 180.1
Air Temp			4	Lookup		Observation
Sky Conditions			3	Lookup		Observation
Wind Direction			18	Lookup		Observation
Wind Strength			1	Lookup		Observation
<b>Lab ID #</b> : AB47979			Result		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
Collionnis (Total)						
E. coli	Sample Date:	7/20/2021		MPN/100mL	1 e#: AB48004	SM9223B
E. coli  SiteID: WEM070-0036	Sample Date:	7/20/2021 Appearance		MPN/100mL		SM9223B
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy	Water		1986.3 Brown		e#: AB48004	☐ Algae?
E. coli	Water	Appearance	1986.3 Brown	IDEM Sampl	e #: AB48004 Water Depth	☐ Algae?
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	1986.3 Brown	IDEM Sampl	e #: AB48004 Water Depth	☐ Algae?
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	1986.3  Brown  Aq  Result  88.6	IDEM Sampl quatic Life?	e #: AB48004 Water Depth Canopy Closed %	☐ <b>Algae?</b> 0-20%
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:	Water	Appearance	1986.3  Brown  Aq  Result  88.6	IDEM Sampl uatic Life?	e #: AB48004 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water	Appearance	1986.3  Brown  Aq  Result  88.6	IDEM Sampl quatic Life? % mg/L	e #: AB48004 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water	Appearance	Brown Aq  Result  88.6 7.57 7.71	IDEM Sampl quatic Life? % mg/L	e #: AB48004 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  campler Comments:  Lab ID #:  % Sat DO pH (Field)	Water	Appearance	Brown Aq  Result  88.6 7.57 7.71	Muatic Life?  % mg/L SU umho/cm	e #: AB48004 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Brown  Result  88.6 7.57 7.71 332 22.8	Muatic Life?  % mg/L SU umho/cm	e #: AB48004 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec): sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Brown  Result  88.6 7.57 7.71 332 22.8 22.3	"We mg/L SU umho/cm °C	e #: AB48004 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water	Appearance	Brown  Result  88.6 7.57 7.71 332 22.8 22.3 5	Muatic Life?  % mg/L SU umho/cm °C NTU	e #: AB48004 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  **Bat DO PH (Field)  Specific Conductance (Field)  Temperature Turbidity (Hach)  Air Temp	Water	Appearance	Brown  Result  88.6 7.57 7.71 332 22.8 22.3 5 2	"Watic Life?"  "Mag/L SU umho/cm "C NTU Lookup	e #: AB48004 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water	Appearance	Brown  Result  88.6 7.57 7.71 332 22.8 22.3 5 2 18	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB48004 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation
SiteID: WEM070-0036  Vater Flow Type Eddy  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Brown  Result  88.6 7.57 7.71 332 22.8 22.3 5 2 18	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB48004 Water Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation
SiteID: WEM070-0036  Nater Flow Type Eddy  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water	Appearance	Brown  Result  88.6 7.57 7.71 332 22.8 22.3 5 2 18 0  Result	% mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB48004  Water Depth  Canopy Closed %  Reporting Limit	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

Friday, October 08, 2021 Page 109 of 115

SiteID: WEM070-0036 Sample Date: 7/27/2021 IDEM Sample #: AB48029 ☐ Algae? **Water Appearance** Clear **Water Depth** Water Flow Type Riffle ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 111.2 % ASTM D888-09(C) % Sat DO 9 mg/L ASTM D888-09(C) 8.01 SU pH (Field) EPA 150.2 Specific Conductance (Field) 397 umho/cm SM2510B 26.1 °C Temperature SM2550B(2) Turbidity (Hach) 21 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup Lab ID #: AB48029 **Reporting Limit** Result **Method** SM9223B Coliforms (Total) > 2419.6 MPN/100mL 2419.6

35.9 MPN/100mL

SM9223B

1

Weather Code Definitions								
SC			WD	WS	AT			
Sky Conditions		1	Wind Direction	Wind Strength	Air Temp			
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

E. coli

Friday, October 08, 2021 Page 110 of 115

USGS Hydrologic Unit: SiteID: WEM070-0001 051202070701 Stream Name: Vernon Fork Muscatatuck River County: Jennings Description: CR 60 South, Vernon 38 58 34.90130 Longitude: -85 37 11.37519 Drainage: 198 Site Number: 21T-025 SiteID: WEM070-0001 Sample Date: 5/11/2021 IDEM Sample #: AB47010 ☐ Algae? Water Flow Type Water Appearance **Water Depth** Run Brown ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 95.1 % ASTM D888-09(C) % Sat DO 10.06 mg/L ASTM D888-09(C) pH (Field) 7.93 SU EPA 150.2 Specific Conductance (Field) 257 umho/cm SM2510B Temperature 12.8 °C SM2550B(2) Turbidity (Hach) 73 NTU EPA 180.1 Air Temp 3 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 0 Lookup

Wind Direction	0 Lookup		Observation
Wind Strength	2 Lookup		Observation
<b>Lab ID #:</b> 500-199136-5	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	90 mg/L	5	SM2320B
Chloride	14 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	110 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	26 mg/L	5	SM2540D
Solids, Total (TS)	280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210 mg/L	10	SM2540C
Sulfate	9.2 mg/L	0.4	EPA 300.0
Calcium (Total)	32 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.8 mg/L	0.1	EPA 200.7
COD	23 mg/L	10	SM5220C
Nitrogen, Ammonia	0.21 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.4 mg/L	0.05	SM4500P-E
TKN	0.88 mg/L	0.4	SM4500N(Org)-D
тос	7.5 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47010	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	980.4 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 111 of 115

**SiteID:** WEM070-0001 **Sample Date:** 6/8/2021 **IDEM Sample #:** AB47571

Water Flow Type Run Water Appearance Clear Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ☑ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result	Reporting Limit	<u>Method</u>
% Sat	94.3 %		ASTM D888-09(C)
DO	8.18 mg/L		ASTM D888-09(C)
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	392 umho/c	m	SM2510B
Temperature	22.4 °C		SM2550B(2)
Turbidity (Hach)	8.66 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
<b>Lab ID #</b> : 500-200713-5	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	130 mg/L	5	SM2320B
Chloride	21 mg/L	1	EPA 300.0
Hardness (as CaCO3)	190 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	8.4 mg/L	5	SM2540D
Solids, Total (TS)	270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240 mg/L	10	SM2540C
Sulfate	19 mg/L	1	EPA 300.0
Calcium (Total)	55 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	15 mg/L	10	SM5220C
Nitrogen, Ammonia	0.21 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	4.6 mg/L	1	SM4500NO3-F
Phosphorus, Total	0.17 mg/L	0.05	SM4500P-E
TKN	0.76 mg/L	0.4	SM4500N(Org)-D
TOC	5 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47571	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/1	00mL 2419.6	SM9223B
E. coli	77.6 MPN/10	00mL 1	SM9223B

Friday, October 08, 2021 Page 112 of 115

	<b>Sample Date:</b> 7/6/2021	IDEM Sample		
Vater Flow Type Run	Water Appearance	Clear	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		88.5 %		ASTM D888-09(C)
DO		7.29 mg/L		ASTM D888-09(C)
pH (Field)		8.07 SU		EPA 150.2
Specific Conductance (Field)		292 umho/cm		SM2510B
Temperature		25.2 °C		SM2550B(2)
Turbidity (Hach)		8.36 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		0 Lookup		Observation
Wind Strength		0 Lookup		Observation
<b>Lab ID #:</b> 500-202110-5		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		110 mg/L	5	SM2320B
Chloride		12 mg/L	1	EPA 300.0
Hardness (as CaCO3)		140 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		6.2 mg/L	5	SM2540D
Solids, Total (TS)		220 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		200 mg/L	10	SM2540C
Sulfate		14 mg/L	1	EPA 300.0
Calcium (Total)		40 mg/L	0.2	EPA 200.7
Magnesium (Total)		8.6 mg/L	0.1	EPA 200.7
COD		16 mg/L	10	SM5220C
Nitrogen, Ammonia		< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite		1.4 mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.16 mg/L	0.05	SM4500P-E
TKN		0.28 mg/L	0.2	EPA 351.2
TOC		4.2 mg/L	1	SM5310C
<b>Lab ID #</b> : AB47719		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		57.3 MPN/100mL	1	SM9223B

Friday, October 08, 2021 Page 113 of 115

SiteID: WEM070-0001	Sample Date:	7/13/2021		IDEM Sample	<b>e #:</b> AB47978	
Water Flow Type Eddy	Water A	ppearance	Brown		Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow	Estimated?	☐ Aq	uatic Life?	Canopy Close	ed % 0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Lir	nit <u>Method</u>
% Sat			90.6	%		ASTM D888-09(C)
DO			7.87	mg/L		ASTM D888-09(C)
pH (Field)			7.8	SU		EPA 150.2
Specific Conductance (Field)			257	umho/cm		SM2510B
Temperature			22.3	°C		SM2550B(2)
Turbidity (Hach)			61.1	NTU		EPA 180.1
Air Temp			4	Lookup		Observation
Sky Conditions			4	Lookup		Observation
Wind Direction			18	Lookup		Observation
Wind Strength			1	Lookup		Observation
<b>Lab ID #</b> : AB47978			<u>Result</u>		Reporting Lir	nit Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
Collionnis (Total)					=	OIVIOZZOD
E. coli	Sample Date:	7/20/2021		MPN/100mL	1	SM9223B
E. coli  SiteID: WEM070-0001	Sample Date: Water A				1	
E. coli  SiteID: WEM070-0001  Water Flow Type Eddy	Water A	7/20/2021	1986.3 Murky		1 e #: AB48003	SM9223B
E. coli  SiteID: WEM070-0001  Nater Flow Type Eddy  Nater Flow (cf/sec):	Water A	7/20/2021 hppearance	1986.3 Murky	IDEM Sampl	1 e #: AB48003 Water Depth	SM9223B
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:	Water A	7/20/2021 hppearance	1986.3 Murky	IDEM Sampl	1 e #: AB48003 Water Depth	SM9223B  Algae?  ed % 0-20%
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water A	7/20/2021 hppearance	1986.3  Murky	IDEM Sampluatic Life?	e #: AB48003 Water Depth Canopy Close	SM9223B  Algae?  ed % 0-20%
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water A	7/20/2021 hppearance	1986.3  Murky	IDEM Sampluatic Life?	e #: AB48003 Water Depth Canopy Close	SM9223B  Algae?  ed % 0-20%  Method
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water A	7/20/2021 hppearance	1986.3  Murky	IDEM Sampluatic Life?  % mg/L	e #: AB48003 Water Depth Canopy Close	SM9223B  Algae?  ed % 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water A	7/20/2021 hppearance	Murky Aq  Result 94.8 7.99 8.29	IDEM Sampluatic Life?  % mg/L	e #: AB48003 Water Depth Canopy Close	SM9223B  Algae?  ed % 0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water A	7/20/2021 hppearance	Murky Aq  Result 94.8 7.99 8.29	Uatic Life?  % mg/L SU umho/cm	e #: AB48003 Water Depth Canopy Close	SM9223B  Algae?  ed % 0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  campler Comments:  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)	Water A	7/20/2021 hppearance	Murky Aq  Result 94.8 7.99 8.29 343 21.9	Uatic Life?  % mg/L SU umho/cm	e #: AB48003 Water Depth Canopy Close	SM9223B  Algae?  ed % 0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  **Lab ID #:  **Sat **DO **pH (Field) **Specific Conductance (Field) **Temperature	Water A	7/20/2021 hppearance	Murky Aq  Result 94.8 7.99 8.29 343 21.9 12	We mg/L SU umho/cm °C	e #: AB48003 Water Depth Canopy Close	SM9223B  Algae?  ed % 0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water A	7/20/2021 hppearance	Murky Aq  Result  94.8 7.99 8.29 343 21.9 12 5	We mg/L SU umho/cm °C NTU	e #: AB48003 Water Depth Canopy Close	SM9223B  Algae?  Algae?  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water A	7/20/2021 hppearance	Murky Aq  Result 94.8 7.99 8.29 343 21.9 12 5 2	Watic Life?  % mg/L SU umho/cm °C NTU Lookup	e #: AB48003 Water Depth Canopy Close	Algae?  Algae?  Algae?  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation
E. coli  SiteID: WEM070-0001  Vater Flow Type Eddy  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water A	7/20/2021 hppearance	Murky Aq  Result  94.8 7.99 8.29 343 21.9 12 5 2 18	"C" NTU Lookup Lookup	e #: AB48003 Water Depth Canopy Close	Algae?  Algae?  Algae?  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2550B(2)  EPA 180.1  Observation  Observation
E. coli  SiteID: WEM070-0001  Nater Flow Type Eddy  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water A	7/20/2021 Appearance Estimated?	Murky Aq  Result  94.8 7.99 8.29 343 21.9 12 5 2 18	"C" NTU Lookup Lookup Lookup	e #: AB48003 Water Depth Canopy Close	Algae?  Algae?  Algae?  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation  Observation
SiteID: WEM070-0001  Water Flow Type Eddy  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water A	7/20/2021 Appearance Estimated?	Murky Aq  Result  94.8 7.99 8.29 343 21.9 12 5 2 18 0  Result	"C" NTU Lookup Lookup Lookup	e #: AB48003  Water Depth Canopy Close  Reporting Lin	Algae?  Algae?  Algae?  Algae?  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation  Observation

Friday, October 08, 2021 Page 114 of 115

SiteID: WEM070-0001 Sample Date: 7/27/2021 IDEM Sample #: AB48028 ☐ Algae? **Water Appearance** Clear **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 78.6 % ASTM D888-09(C) % Sat DO 6.54 mg/L ASTM D888-09(C) 8.04 SU pH (Field) EPA 150.2 Specific Conductance (Field) 406 umho/cm SM2510B Temperature 24.6 °C SM2550B(2) Turbidity (Hach) 5.75 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength Observation 0 Lookup Lab ID #: AB48028 **Reporting Limit** Result **Method** 

> 2419.6 MPN/100mL

47.1 MPN/100mL

SM9223B

SM9223B

2419.6

1

Weather Code Definitions								
SC			WD	WS	AT			
Sky Conditions		V	Vind Direction	Wind Strength	Air Temp			
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

Coliforms (Total)

E. coli

Friday, October 08, 2021 Page 115 of 115